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TECHNICAL MANUAL

ARMY EQUIPMENT DATA SHEETS
AMMUNITION PECULIAR EQUIPMENT

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HEADQUARTERS, DEPARTMENT OF THE ARMY

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Technical Manual

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HEADQUARTERS
DEPARTMENT OF THE ARMY
Washington, DC, 1 May 1989

ARMY EQUIPMENT DATA SHEETS
AMMUNITION PECULIAR EQUIPMENT (APE)

REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this manual. If you find any mistakes, or if you know of a way to improve the procedures, please let us know. Mail your DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA form 2028-2 located in the back of this manual direct to: Commander, U.S. Army Armament, Munitions and Chemical Command, ATTN: AMSMC-MAS, Rock Island, IL 61299-6000. A reply will be furnished to you.

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*This manual supersedes TM 43-0001-47, 24 February 1984 and changes.

CHAPTER 1

INTRODUCTION

a. This manual is a reference published as an aid in training, familiarization, and identification of ammunition peculiar equipment (FSC 4925). There are no National Stock Numbers (NSN) for APE. They are identified by an APE Management Number (AMN) and are supplied by the CDR, U.S. Army Armament, Munitions and Chemical Command, ATTN: AMSMC-DSM-ME, Rock Island, IL 61299-6000, to all authorized recipients.

b. The APE AMN consists of 4925 Federal Stock Class, AA special identifier, 1001 four digit APE Number, and 0000 end item, A001 major assemblies, E001 accessory kits, or 0001 components. An example of an APE 1001 end item would be AMN 4925-AA-10010000. Accessory kits are not normally supplied with end items. This manual is not to be used as authorization for requisitioning, stockage, maintenance, or issue of the materiel described herein.

CHAPTER 2

DATA SHEETS

The following Data Sheets are for those APE that are approved and used during regular daily ammunition operations to renovate, perform surveillance, demilitarize, and perform preservation and packaging functions. The data provided on each

data sheet consists of equipment used, a brief description, difference between models, tabulated data, associated equipment, and available kits. Illustrations provided are for identification.

APE 1001M1--MACHINE, VERTICAL PULL APART

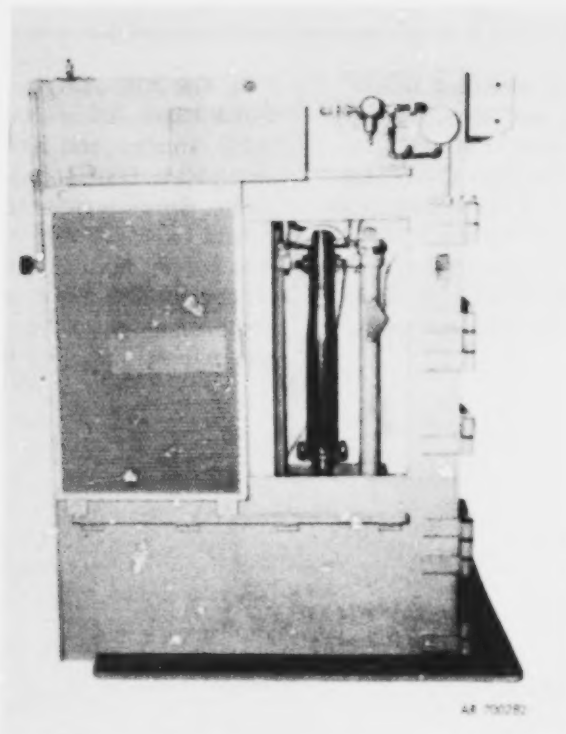


Figure 2-1.

Use:

The vertical pull apart machine is a semiautomatic multipurpose machine used for processing 37MM through 106MM fixed artillery ammunition, Navy ammunition, 76mm/62, 3"/50, 5"/38, 5"/54, 6"/47 and rocket motors. It performs the following operations:

- a. Separate projectile from cartridge case.
- b. Resize cartridge case mouth.
- c. Assemble projectile to cartridge case.
- d. Calibrate the pounds of pull required to separate the projectile from the cartridge case.

e. Crimp the cartridge case to the projectile.

f. Prime and deprime cartridge cases with press type primers.

g. Continuity test 2.75-inch and 3.5-inch rocket motors.

Description:

The vertical pull apart machine is constructed with a base plate, operating table, three bolster rods, vise assembly, pull cylinder, and fulcrum arm assembly. The machine is powered by air. An operational shield is provided to protect the operator. Some shields are supplied with an installed deluge system.

Difference Between Models:

The difference between APE 1001 and APE 1001M1 is a change in part numbers only.

Tabulated Data:

APE No. 10010000M1

Unit of Issue Each

Installation Data:**BASIC MACHINE:**

Length 60 in.

Width 36 in.

Height 62-1/2 in.

Weight 2010 lb

OPERATIONAL SHIELD:

Length 60 in.

Width 50 in.

Height 84 in.

Weight 3320 lb

Utilities Required:

Air at 100 psi and 130 cfm.

Production Capacity:

Varies with type of operation being performed.

Shipping Data:**BASIC MACHINE:**

Length 66 in.

Width 42 in.

Height 72 in.

Cube 115.0 cu ft

Weight 2480 lb

OPERATIONAL SHIELD:

Length 66 in.

Width 60 in.

Height 96 in.

Cube 220.0 cu ft

Weight 4142 lb

Associated Equipment:

None.

Kits:

1001A003 KIT, Resize Cartridge Case, 90MM only, flue roll type operation
Use APE 1164 for production

1001E001 SHIELD Operational for VPA above. Supplied with automatic controls installed.

1001E003 KIT, Resize Cartridge Case. 37MM through 106MM

1001E004 KIT, Resize Cartridge Case, 105MM: T43, M90, M95; 106MM: M93, M94

1001E005 KIT, Vise Jaws & Cartridge Case Shoes for pull apart of 105MM: M323, M325

1001E006 KIT, Pull Apart, 105MM: M456

1001E007 KIT, Pull Apart and Resize 57MM: M306 and M307

1001E009 KIT, Rebuild 12-inch air cylinders

1001E010 KIT, Plexiglass shield for resizing solid wall cartridge case

1001E011 KIT, Bullet Pull Test Calibration

1001E013 KIT, Holding accessories for continuity testing of 3.5-inch rocket motors

1001E014 KIT, Holding accessories for continuity testing of 2.75-inch rocket motors

1001E015 KIT, Modification of Operational Shield for Continuity

1001E016 KIT, (Circuitry) 3.5-inch rocket motor continuity test

1001E017 KIT, (Circuitry) 2.75-inch rocket motor continuity test

1001E019 KIT, Basic, for pull apart, resize, assembly and crimping of cartridges

1001E020 KIT, Pull Apart, 37MM: M54, M59, M63, M92 w/ M16 Cartridge Case

1001E021	KIT, Pull Apart, 37MM: M54, M59, M63, M92 w/ M17 Cartridge Case	1001E042	KIT, Resize Cartridge Case, 75MM: M5, M9, M18
1001E022	KIT, Pull Apart, 40MM: MK2, MK11, M81, M91	1001E043	KIT, Resize Cartridge Case, 75MM: M31
1001E023	KIT, Pull Apart, 57MM: M306, M307, M308	1001E044	KIT, Resize Cartridge Case, 75MM: M35
1001E024	KIT, Pull Apart, 57MM: M303	1001E045	KIT, Resize Cartridge Case, 76MM: M26
1001E025	KIT, Pull Apart, 75MM: M48, M61, M64, M66, M338	1001E046	KIT, Resize Cartridge Case, 76MM: M88
1001E026	KIT, Pull Apart, 75MM: M309, M310, M311	1001E047	KIT, Resize Cartridge Case, 90MM: M19 and M108
1001E027	KIT, Pull Apart, 75MM: M349	1001E048	KIT, Resize Cartridge Case, 105MM: M32
1001E028	KIT, Pull Apart, 75MM: M334	1001E049	KIT, Resize Cartridge Case, 105MM: M94 and M95; also 106MM: M93 and M94
1001E029	KIT, Pull Apart, 76MM: M42, M62, M93, M312, M315	1001E050	KIT, Basic, Prime and Deprime Operation
1001E030	KIT, Pull Apart, 76MM: M319, M339, M340, M352, M361	1001E051	KIT, Prime & Deprime, 37MM: M16
1001E031	KIT, Pull Apart, 90MM: M71, M77, M79, M82, M133, M304, M313, M317, M318, M319, M332, M336, M431	1001E052	KIT, Prime & Deprime, 37MM: M17
1001E032	KIT, Pull Apart, 105MM: M341	1001E053	KIT, Prime & Deprime, 40MM: M25, MK2
1001E033	KIT, Pull Apart, 105MM: M326	1001E054	KIT, Prime & Deprime, 57MM: M30
1001E034	KIT, Pull Apart, 105MM: M345	1001E055	KIT, Prime & Deprime, 57MM: M23, and 76MM: M26
1001E035	KIT, Pull Apart, 106MM: M344	1001E056	KIT, Prime & Deprime, 75MM: M5, M9, M18
1001E036	KIT, Pull Apart, 106MM: M346	1001E057	KIT, Prime & Deprime, 75MM: M31
1001E037	KIT, Basic, Resize, Cartridge Cases, 37MM through 106MM	1001E058	KIT, Prime & Deprime, 90MM: M19, M28; 105MM: M32, M95; 106MM: M93, M94
1001E038	KIT, Resize Cartridge Case, 37MM: M16, M17	1001E059	KIT, Prime & Deprime, 105MM: M14 and M15
1001E039	KIT, Resize Cartridge Case, 40MM: M25, MK2	1001E060	KIT, Assembly & Crimp, 37MM w/M16 Cartridge Case
1001E040	KIT, Resize Cartridge Case, 57MM: M30	1001E061	KIT, Assembly & Crimp, 37MM w/M17 Cartridge Case
1001E041	KIT, Resize Cartridge Case, 57MM: M23		

1001E062	KIT, Assembly & Crimp, 40MM, w/M25, MK2 Cartridge Case	1001E077	KIT, Assemble M392A1, 105MM Projectile to M115B1 Cartridge Case
1001E063	KIT, Assembly & Crimp, 57MM, w M23 Cartridge Case	1001E078	KIT, Holding Fixture, to continuity test 2.75-inch rocket motors w/solid bulkhead closures
1001E064	KIT, Assembly & Crimp, 75MM, w/M5, M9, M18 Cartridge Case	1001E079	KIT, Resize Cartridge Case, 105MM: M148, M148A1B1, M150
1001E065	KIT, Assembly & Crimp, 75MM, w/M35 (T6E3) Cartridge Case	1001E080	KIT, Assembly & Crimp, 105MM: M456E1, 8-Stab
1001E066	KIT, Assembly & Crimp, 76MM, w/M26 Cartridge Case	1001E081	KIT, Pull Apart, 37MM & 40MM w self-destructing tracer
1001E067	KIT, Assembly & Crimp, 76MM, w/M88 or M101 Cartridge Case	1001E082	KIT, Pull Apart 66MM: M72 Rocket
1001E068	KIT, Assembly & Crimp, 90MM, w/M19 or M27 Cartridge Case	1001E083	KIT, Resize 105MM M115
1001E069	KIT, Assembly & Crimp, 105MM, w/M32 Cartridge Case	1001E087	KIT, Accessory for Pull Apart of 105MM APDS-T, M392, M728 Cartridge
1001E070	KIT, Assembly & Crimp, 105MM, w/M90, M95 Cartridge Cases, and 106MM w/M94 Cartridge Case	1001E088	Basic Accessories for Pull Apart of Navy Cartridge 76MM/62 Cal
1001E071	KIT, Assembly & Crimp, 106MM, w/M93 or M94 Cartridge Case	1001E089	GAGE, VPA Alinement
1001E072	KIT, Modification, Vertical Pull Apart Machine and Operational Shield for Surveillance	1001E090	KIT, Pull Apart Navy 3"/50
1001E073	KIT, Assembly & Crimp, 40MM: MK2	1001E091	KIT, Deluge w Shield
1001E074	KIT, Pull Apart 105MM HEP-T: M393A1, M416 & M494	1001E092	KIT, Resize, Cartridge. Case 6"/47 Propelling Charge
1001E075	KIT, Pull Apart 90MM: M371	1001E093	KIT, Resize, Cartridge Case, 5"/38 Propelling Charge
		1001E094	KIT, Resize, Cartridge Case 5"/54 Propelling Charge

APE 1002M2--MACHINE, TWO SPINDLE, DEFUZING

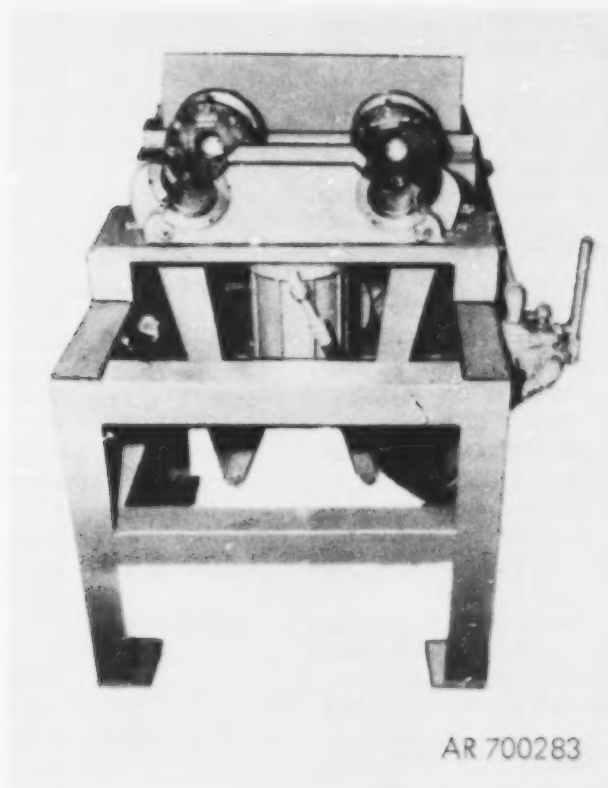


Figure 2-2.

Use:

The two spindle defuzing machine was developed for removing the point detonating or base detonating fuzes from 57MM through 106MM artillery projectiles, Navy ammunition, 3"/50 and 60MM and 81MM mortar projectiles. It's usage has also been expanded to remove base plates, plugs, tracers, from projectiles; disassemble certain projectiles; remove fuzes and plugs from frag bombs; disassemble rockets; and debooster fuzes.

Description:

The machine consists of a steel frame with a vise assembly and re-

tractor head assembly mounted to accommodate two fuzed projectiles at the same time. The retractor heads are chain driven by air motor. The direction of rotation of the retractor heads is controlled by the hand throttle and/or the reversing valve on the air motor.

Difference Between Models:

The APE 1002M2 differs from the APE 1002M1 in that the APE 1002M2 has an air receiver tank, eleven tooth drive sprockets, and an elongated slot in the frame to provide exact adjustment in the vise assembly for the various size projectiles.

Tabulated Data:

APE No. 10020000M2

Unit of Issue Each

Installation Data:

Length 46 in.

Width 33 in.

Height 38 in.

Weight 1220 lb

Utilities Required:

Air at 100 psi and 80 cfm.

Production Capacity:

Depends upon type and condition of ammunition.

Shipping Data:

Length 55 in.

Width 48 in.

Height 48 in.

Cube 73.4 cu ft

Weight 1305 lb

Associated Equipment:

None.

Kits:

1002E001 KIT, Production Basic

1002E002 KIT, 57MM, Remove BD Fuze

1002E003 KIT, 75MM, Remove BD Fuze

1002E004 KIT, 76MM, Remove BD Fuze

1002E005 KIT, 75MM, Remove PD Fuze (except M334 Proj)

1002E006 KIT, 75MM: M334, Remove PD Fuze

1002E007 KIT, 76MM, Remove PD Fuze

1002E008 KIT, 90MM, Remove PD Fuze

1002E009 KIT, 105MM, Remove PD Fuze

1002E010 KIT, 90MM, Remove BD Fuze (except T142 Series Projectile)

1002E011 KIT, 90MM, Remove BD Fuze T142 Series Projectile

1002E012 KIT, 105MM, Remove BD M92 Fuze (except T139E45 Projectile)

1002E013 KIT, 105MM, 106MM, Remove BD Fuze,

105MM: T139E45,

106MM: T139E47

1002E014 KIT, 60MM Mortar: M49 and M50, Remove Fuze

M52, M82, M525, M527

1002E015 KIT, 60MM Mortar: M302, Remove Fuze M52,

M82, M525, and M527

1002E016 KIT, 81MM Mortar: M43A1B1, Remove Fuze

M52, M82, M525, and

M527

1002E017 KIT, 81MM Mortar: M362, Remove Fuze M52,

M82, M525, and M527

1002E018 KIT, 81MM Mortar: M362, M374, M375, Remove Fuze M519 and

M526

1002E019 KIT, 20-23 lb Frag Bomb, Remove Fuze

1002E020 KIT, 20-23 lb Frag Bomb, Remove Fuze Well

Plug

1002E021 KIT, 106MM: M345, Remove Base Plug

1002E022 KIT, 105MM: M84 and 155MM, M116 BE Projectile. Remove Base

Plate

1002E023 KIT, 106MM: M344 Projectile, Disassembly

1002E024 KIT, 105MM: M416, Remove Tracer and Base

Fuze, M534

1002E025 KIT, Disassemble M28, M29 and M30 3.5-inch

Rockets

1002E030 KIT, Disassemble M10 2.36-inch Rocket

1002E031 KIT, 57MM: M306A1, Remove M503 Fuze

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1002E034	KIT, Disassemble M28, M29, and M30 3.5-inch Rockets between Rocket Motor and Fuze	1002E038	KIT, Remove M21A4 Booster from standard contour fuze
1002E035	KIT, Disassemble M28, M29 and M30 3.5-inch Rocket between Warhead and Fuze, or between Rocket Motor and Fuze	1002E039	KIT, Remove Closing Plug 57MM: M307A1 Projectile
1002E036	KIT, to Remove M21A4 Booster from Artillery Projectile	1002E041	KIT, Remove Tracer from 40MM: HEI-T, MK2
1002E037	KIT, Renovation of 3.5-inch Rocket Assembly, all models	1002E042	KIT, Defuze 3"/50 Cartridge (Remote Control)
		1002E043	KIT, Remove Cartridge Case Locking Ring, 152MM
		1002E044	KIT, Remove Projectile Lifting Plug

APE 1003M1--LID REMOVER, PNEUMATIC

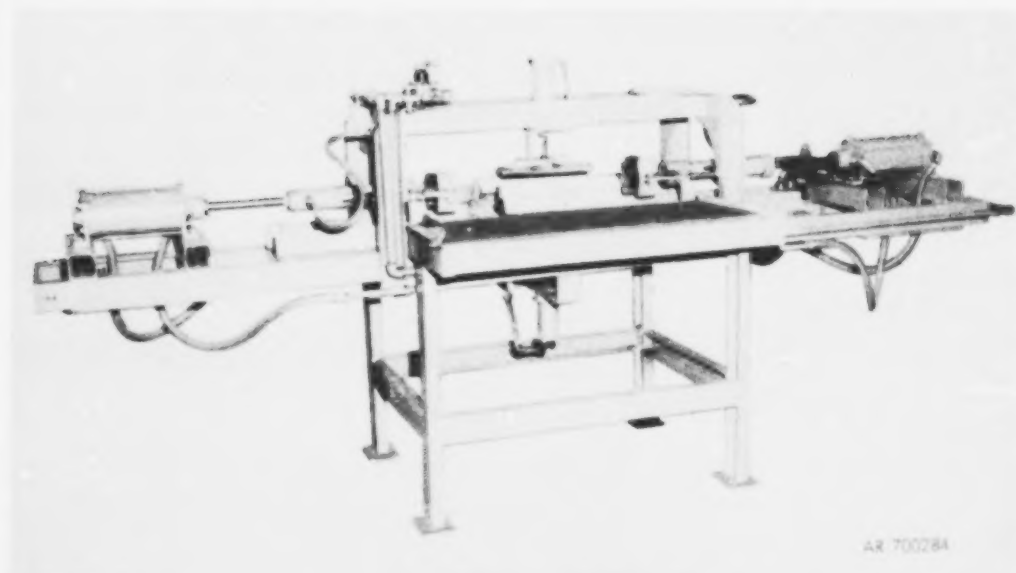


Figure 2-3.

Use:

The pneumatic lid remover was designed to remove lids from single and double end fiber containers for 40MM through 105MM ammunition (except 105MM HEAT ammunition). It can also be used to remove lids from 120MM fiber containers and closing plugs from 120MM cartridge cases.

Description:

The machine is of table type construction with a traveling cylinder and clamp shoe assembly on each end of the table. The clamp shoe assemblies remove the lids when actuated by a hand valve. The machine has two safety guards which prevent the operator from inserting more than one container at a time into the machine.

Difference Between Models:

The APE 1003M1 has improved safety features and is capable of removing lids from 120MM fiber containers and removing M2E3 closing plugs from 120MM cartridge cases.

Tabulated Data:

APE No. 10030000M1
 Unit of Issue Each
 Installation Data:
 Length 124-1/2 in.
 Width 46 in.
 Height 52 in.
 Weight 1422 lb
 Utilities Required:
 Air at 100 psi and 100 cfm.
 Production Capacity:
 360 containers per hour.

Shipping Data:

Length 131 in.
 Width 51 in.
 Height 62 in.
 Cube 246 cu ft
 Weight 1575 lb

Associated Equipment:

None.

Kits:

1003E001 KIT, Remove Lids from 40MM through 57MM Fiber Containers
 1003E002 KIT, Remove Lids from 75MM through 81MM Fiber Containers
 1003E003 KIT, Remove Lids from 90MM through 105MM Fiber Containers (except 105MM HEAT ammunition)
 1003E004 KIT, Remove Lids from 120MM Fiber Containers
 1003E005 KIT, Remove M2E3 Closing Plug from 120MM Cartridge Case
 1003E006 KIT, Modify Control System

APE 1004M1--MACHINE, TAPING

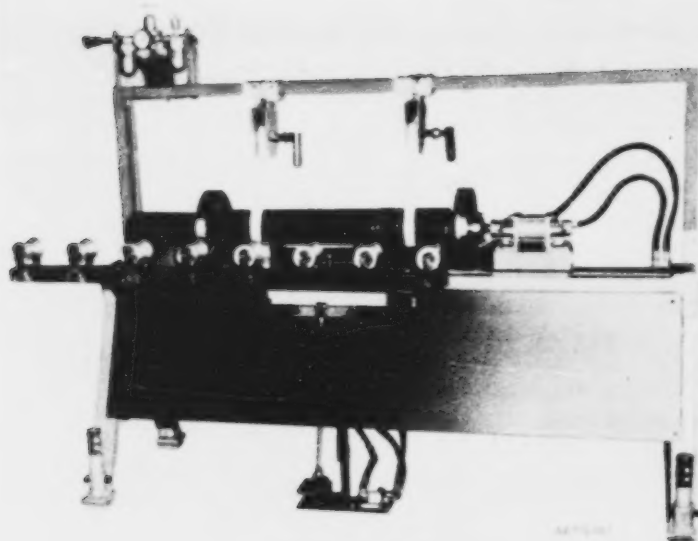


Figure 2-4.

Use:

This machine is used to apply $1\frac{1}{2}$ wraps plus 1 inch and tab of 1-inch to 2-inch tape to fiber containers. The fiber containers range in size from 40MM to 120MM lengths from 14 to 44 inches and diameters of 2-3/8 thru $6\frac{1}{4}$ inches.

Description:

The machine consists of two air operated 16-1/2 inch cylinders which operate the drive head as-

sembly and an air cylinder which operates the idler assembly, a fiber kickoff device, a fiber holder assembly, and two tape holders with cutters.

Difference Between Models:

Basic machine drive head rotation provided two wraps of tape to a container. M1 version reduced the drive head rotation to $1\frac{1}{2}$ wraps and also included two tape cutters.

Tabulated Data:

APE No. 10040000M1

Unit of Issue Each

Installation Data:

Length 80 in.

Width 28 in.

Height 72 in.

Weight not available

Utilities Required:

Air at 80 psi and 105 cfm.

Production Capacity:

386 single end fiber contain-
ers per hour. 240 double end
fiber containers per hour.

Shipping Data:

Length 89 in.

Width 41 in.

Height 76 in.

Cube 160.5 cu ft

Weight 1160 lb

Associated Equipment:

None.

Kits:

None.

All Data on Pages 2-14 and 2-15, Including Figure 2-5 Deleted.

APE 1010M2--MACHINE ASSEMBLY AND CRIMP



Figure 2-6.

Use:

The assembly and crimp machine is used to align, assemble, and crimp the cartridge case to the projectile. The machine handles 57MM through 106MM ammunition.

Description:

The machine consists of a frame with an air cylinder assembly used to position the projectile in the cartridge case, and a crimping assembly. Pneumatic controls are provided to operate the machine.

Difference Between Models:

The 1010M2 has a revised parts list and revised operating procedure.

Tabulated Data:

APE No. 10100000M2

Unit of Issue Each

Installation Data:

Length 82 in.

Width 24 in.

Height 54 in.

Weight 1500 lb

Utilities Required:

Air at 100 psi and 100 cfm.

Production Capacity:

240 cartridges per hour.

Shipping Data:

Length 89 in.

Width 39 in.

Height 64 in.

Cube 129 cu ft

Weight 1795 lb

Associated Equipment:

None.

Kits:

1010E001 KIT, Assembly and
Crimp, 75MM

1010E003 KIT, Assembly and
Crimp, 76MM

1010E004 KIT, Assembly and
Crimp, 90MM

1010E005 KIT, Assembly and
Crimp, 105MM and
106MM

1010E008 KIT, Assembly and
Crimp, 90MM: M371

1010E009 KIT, Assembly and
Crimp, 105MM: M456A1

1010E010 KIT, Assembly and
Crimp, 57MM: M306
and M307

1010E011 KIT, Precrimp 106MM:
M94B1 Cartridge Case

APE 1011M5--DEPRIMING MACHINE, BACKOUT

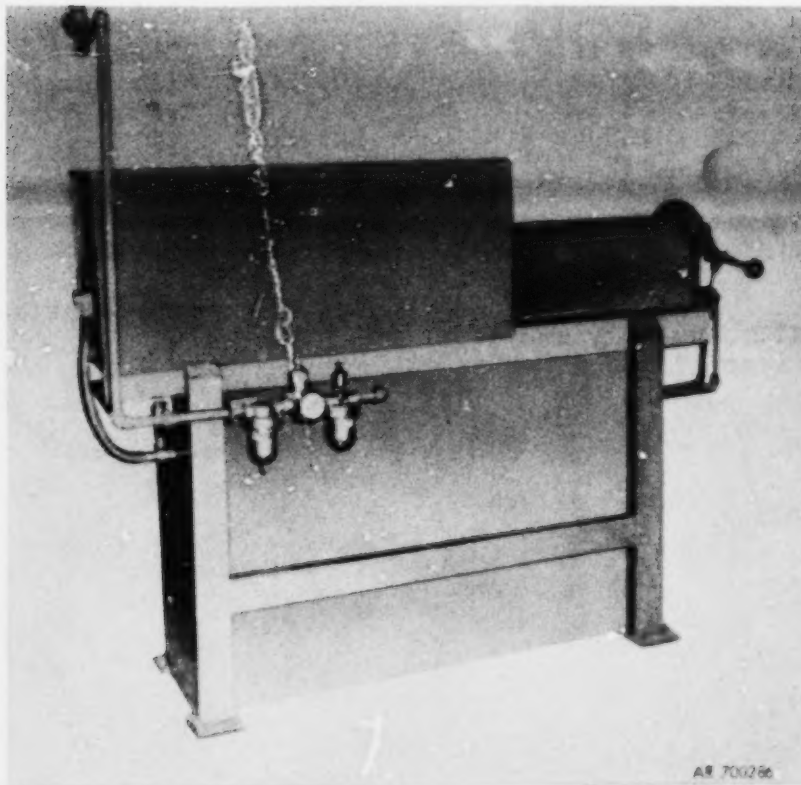


Figure 2-7.

Use:

The backout depriming machine was designed to mechanically remove screw-type primers from cartridge cases. It utilizes a back-out method which eliminates the hazard of the primer head being struck during removal.

Description:

The machine consists of a table, a flash shield, a cartridge case locking device, a primer housing and collet holder assembly, an air motor, two air cylinders, and the control valves.

Difference Between Models:
Not available.

Tabulated Data:

APE No. 10110000M5
Unit of Issue Each
Installation Data:
Length 70 in.
Width 20 in.
Height 50 in.
Weight 1500 lb

Utilities Required:

Air at 80 psi and 100 cfm.

Production Capacity:

225 per hour.

Shipping Data:

Length 78 in.
 Width 24 in.
 Height 60 in.
 Cube 25 cu ft
 Weight 1926 lb

Associated Equipment:

None.

Kits:

1011E001 KIT, Remove M86 Primer
 from 105MM Cartridge
 Cases: M115, M148,
 and M150
 1011E002 KIT, Removal of L4
 Primers from 105MM L36
 cartridge cases
 1011E003 KIT, Remove Primer
 from 3"/50 Navy
 Cartridge Case

APE 1021M4--MACHINE, PRIMER INSERTING

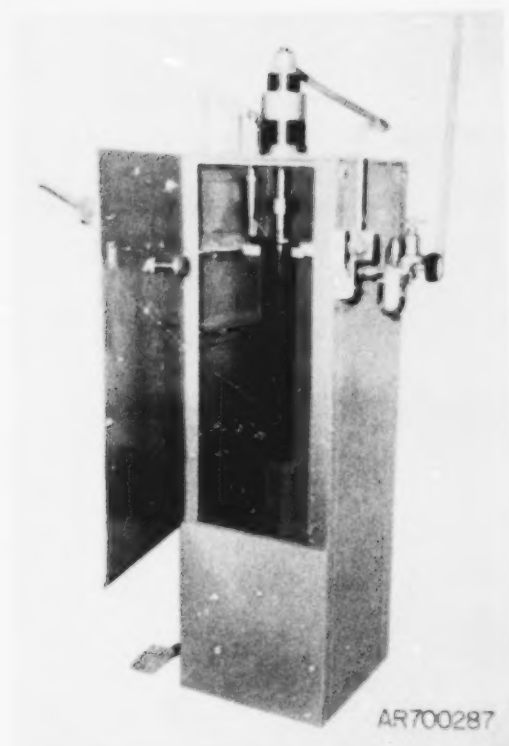


Figure 2-8.

Use:

The primer inserting machine is used to assemble loaded screw-type primers into artillery cartridge cases. It is used on 75MM through 120MM and 3-inch through 6-inch cartridge cases.

Description:

The machine consists of a steel barricade with door, an air motor with wrench assembly, a mounting plate for holding cartridge cases, a foot pedal operated wrench lifter, and pneumatic controls for operating the machine.

Difference Between Models:
Not available.

Tabulated Data:

APE No.	10210000M4
Unit of Issue	Each
Installation Data:	
Length	20-1/2 in.
Width	25 in.
Height	64 in.
Weight	225 lb
Utilities Required:	
Air at 90 psi and 36 cfm.	
Production Capacity:	
200 cartridges per hour.	

Shipping Data:

Length 24 in.
Width 30 in.
Height 64 in.
Cube 26.55 cu ft
Weight 300 lb

Associated Equipment:
None.

Kits:

1021E001 KIT, Holding Shoes for
75MM through 120MM Ctg
Cases and Navy 3" thru
6" Ctg Cases
1021E002 KIT, Holding Shoe for
105MM Cartridge Cases:
M115, M148, and M150

APE 1022M1--CONVEYOR, POWERED BELT

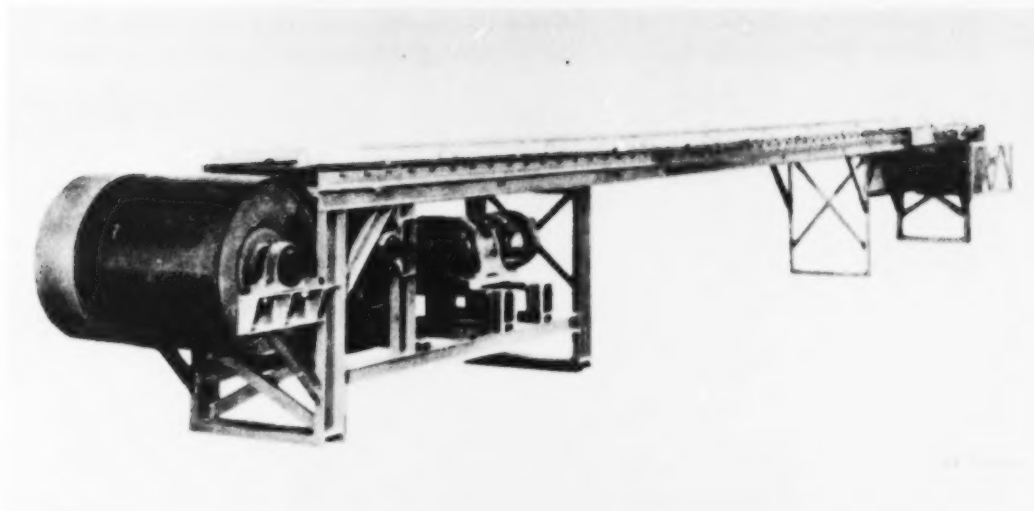


Figure 2-9.

Use:

The powered belt conveyor is used for moving artillery projectiles, small rockets, boxed general supplies, and miscellaneous ammunition components through industrial plant buildings.

Description:

The conveyor is a powered, roller bed, flat belt type conveyor. The direction of belt travel can be reversed and the speed is adjust-

able. Conveyor lengths vary up to 220 feet maximum. Belt width is 18 inches and conveyor can support loads up to 120 pounds per lineal foot.

Difference Between Models:

Conveyors with the M1 modification have the start-up safety alarm kit installed.

Tabulated Data:

APE No. 10220000M1
Unit of Issue Each

Installation Data:

Length 220 ft
 Width 32 in.
 Height Adjustment
 from 32 to
 40 in.
 Weight Varies with
 length of
 conveyor

Utilities Required:

220/440 vac, 3 phase, 60 Hz.

Production Capacity:

Belt speed can be varied from
 15 feet per minute to 60 feet
 per minute.

Shipping Data:

Length Varies with
 length of
 conveyor

Width Varies with
 length of con-
 veyor

Height Varies with
 length of con-
 veyor

Cube Varies with
 length of con-
 veyor

Weight Varies with
 length of con-
 veyor

Associated Equipment:

None.

Kits:

None

APE 1024M2--LINKER-DELINKER, POWERED, CALIBER .50

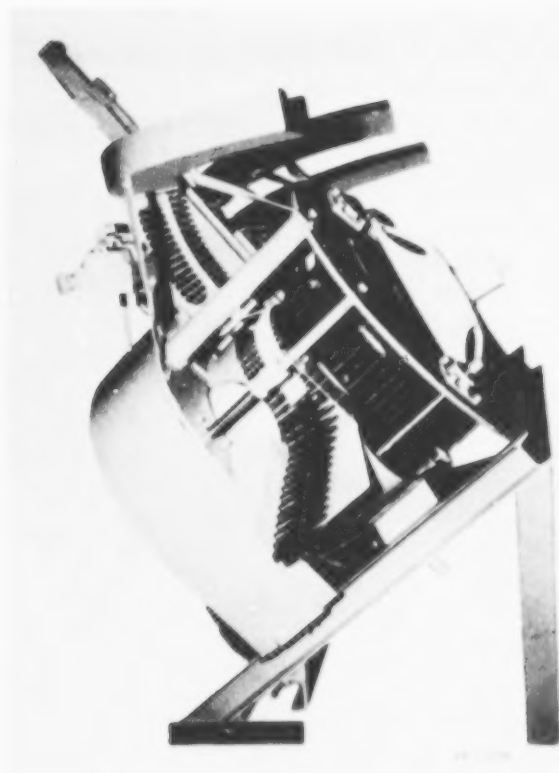


Figure 2-10.

Use:

The linker-delinker was designed to link and/or delink caliber .50 cartridges with M2 or M9 links. The machine is capable of handling straight or ratio pack ammunition. Ratio pack or ratio replacement must be in a sequence of 5, i.e., 4-1, 3-2, or 2-2-1.

Description:

The machine is a drum type linker-delinker. It consists of a frame, drum, ejector rods, a link feed assembly, a cartridge feed assembly with three cartridge feed trays, ten link magazines each with 40 link capacity, and an electric motor.

Difference Between Models:

The M1 has all ejector rods of the same length. The M2 required new mounting arrangement for gear motor; currently available gear-motors are not dimensionally interchangeable for mounting on original or M1 frames.

Production Capacity:

300 cartridges per minute.

Shipping Data:

Length 55 in.
Width 48 in.
Height 56 in.
Cube 85.5 cu ft
Weight 1628 lb

Tabulated Data:

APE No. 10240000M2
Unit of Issue Each

Installation Data:

Length 40 in.
Width 48 in.
Height 50 in.
Weight 1200 lb

Utilities Required:

115/230 vac, single phase, 60
Hz, 4.6/2.3 amp.

Associated Equipment:

None

Kits:

None

APE 1025--LINKER-DELINKER, POWERED, CALIBER .30



Figure 2-11.

Use:

The linker-delinker was designed to link and/or delink caliber .30 cartridges with M1 links. The machine is capable of handling straight or ratio pack ammunition. Ratio pack or ratio replacement must be in a sequence of 5, i.e., 4-1, 3-2 or 2-2-1.

Description:

The machine is a drum type linker-delinker. It consists of a frame drum, ejector rods, a link feed assembly, a cartridge feed assembly with three cartridge feed trays, and an electric motor.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 10250000

Unit of Issue Each

Installation Data:

Length 32 in.

Width 38 in.

Height 45 in.

Weight 550 lb

Utilities Required:

115/230 vac, single phase, 60

Hz, 4.6/2.3 amp.

Production Capacity:

360 cartridges per minute.

Shipping Data:

Length 54 in.

Width 43 in.

Height 72 in.

Cube 96.7 cu ft

Weight 1026 lb

Associated Equipment:

None.

Kits:

None.

APE 1028---SYSTEM, VACUUM COLLECTION

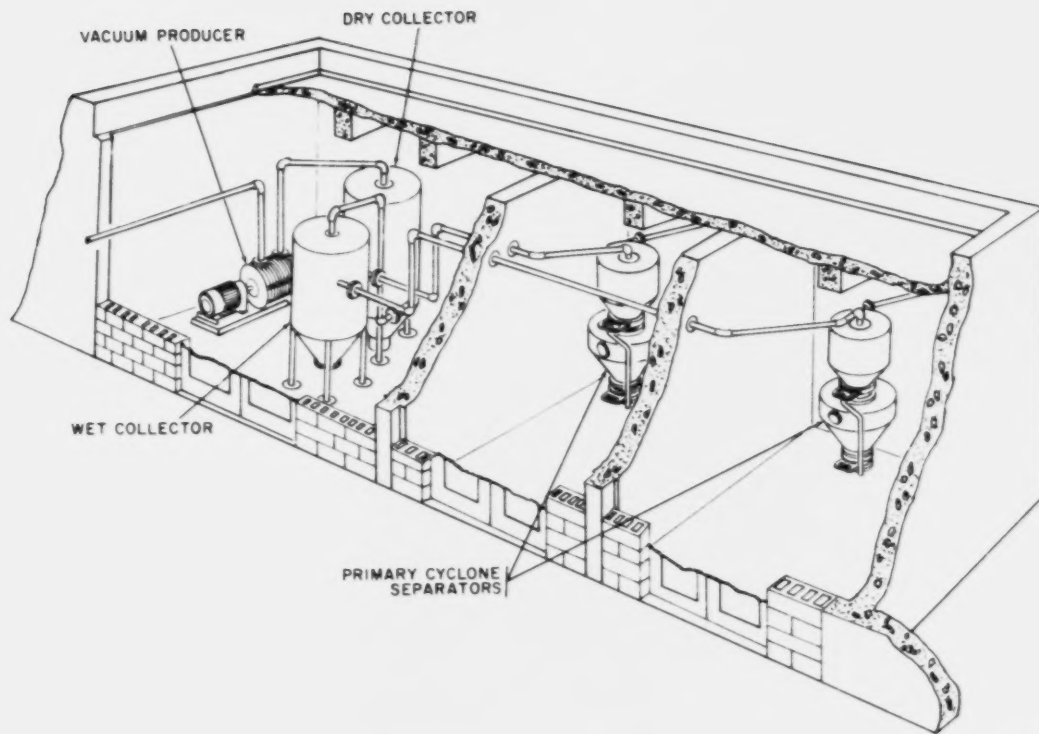


Figure 2-12.

Use:

The vacuum collection system was developed to convey propellant from maintenance operations to a powder collection building.

Description:

The component parts of this system are a vacuum producer; a primary separator and storage hopper; a wet type explosives separator; and a dry type explosives separator.

All components are connected by stainless steel piping. This is installed equipment requiring special layouts adaptable to various locations.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 10280000
Unit of Issue Each

Installation Data:

Length not available
 Width Dependent on
 plant layout
 Height not available
 Weight not available

Utilities Required:

220 vac, 3 phase, 60 Hz,
 27 amp.

Production Capacity:

Not applicable.

Shipping Data:

EXHAUSTER

Length 72 in.
 Width 36 in.
 Height 24 in.
 Cube 36 cu ft
 Weight 2000 lb

WET COLLECTOR

Length 72 in.
 Width 36 in.
 Height 36 in.
 Cube 54 cu ft
 Weight 750 lb

DRY COLLECTOR

Length 108 in.
 Width 36 in.
 Height 36 in.
 Cube 81 cu ft
 Weight 1000 lb

HOPPER

Length 84 in.
 Width 24 in.
 Height 24 in.
 Cube 28 cu ft
 Weight 750 lb

PIPING

Length 14 ft
 Width 4 ft
 Height 4 ft
 Cube 224 cu ft
 Weight 1200 lb

Associated Equipment:

None.

Kits:

1028E001 KIT, Exhauster, Cen-
 trifugal
 1028E003 KIT, Control System,
 Propellant Discharge,
 Pneumatic

APE 1029--MACHINE, ABRASIVE BLAST CLEANING

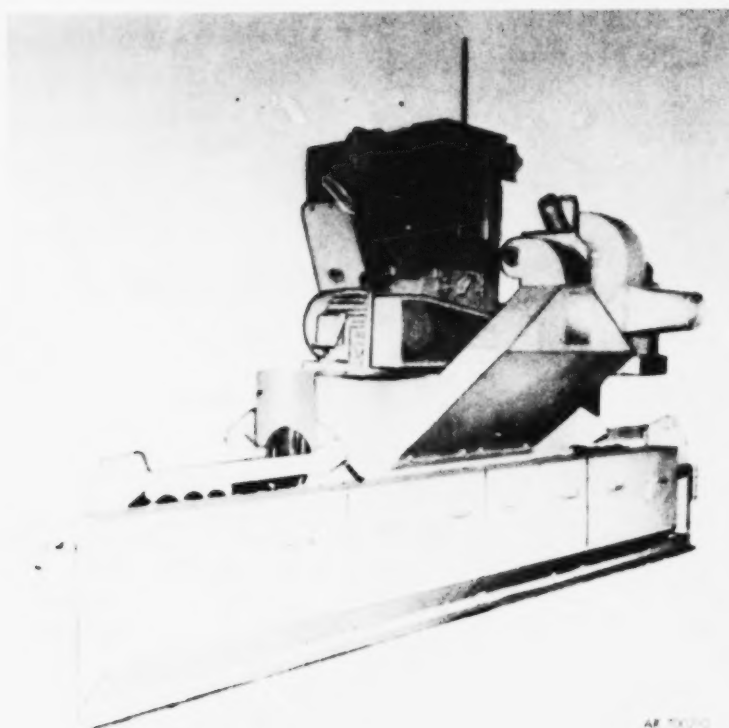


Figure 2-13.

Use:

The abrasive blast cleaning machine is used to remove rust, corrosion, and oxidized paint from unfuzed projectiles and cylindrical objects. Projectiles range in size from 75MM through 8 inch.

Description:

The machine consists of a blast cabinet, skew roll conveyor, and dust collector.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 10290000
Unit of Issue Each

Installation Data:

MACHINE

Length 19 ft 7 in.
Width 4 ft 6 in.
Height 11 ft 3 in.
Weight 17,000 lb

DUST COLLECTOR

Length 4 ft
Width 14 ft
Height 11 ft
Weight 2,000 lb

Utilities Required:

220/440 vac, 3 phase, 60 Hz,
40/20 amp.

Production Capacity:

Varies with type and size of
item being processed. Example:
250 ea 75MM or 175 ea 105MM
projectiles per hour is typi-
cal.

Shipping Data:

MACHINE

Length 21 ft
Width 6 ft
Height 6 ft
Cube 756 cu ft
Weight 19,000 lbs

DUST COLLECTOR

Length 5 ft
Width 8 ft
Height 14 ft
Cube 560 cu ft
Weight 3,000 lb

Associated Equipment:

None.

Kits:

1029E001 KIT, Clean empty 90MM
storage cases and emp-
ty 155MM propellant
charge containers
1029E002 KIT, Feed Conveyor
1029E003 KIT, Takeoff Conveyor

All Data on Pages 2-32 and 2-33, Including Figure 2-14 Deleted.

APE 1032--SCALE, SHADOWGRAPH



Figure 2-15.

Use:

To weigh propellant powder, ammunition components, and bulk explosives with greater speed and increased accuracy.

Description:

The scale is a bench type with a commodity platter. It has a moving pointer to indicate if this item being weighed is overweight or underweight. The pointer is protected by a clear plastic cover.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 10320000

Unit of Issue Each

Installation Data:

Length 24-1/2 in.

Width 16-5/8 in.

Height 19 in.

Weight not available

Utilities Required:

110 VAC 60 Hz, single phase

Production Capacity:

Dependent on item being
weighed.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

None.

Kits:

None.

APE 1035--MACHINE, ABRASIVE BLAST CLEANING, BSR

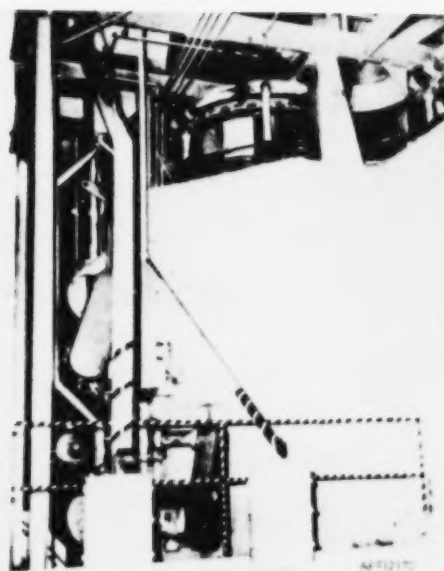


Figure 2-16.

Use:

Installed in Bomb Service Renovation Buildings. Used for cleaning Ammunition Projectiles and Bombs up to 3000 pounds.

Description:

The system consists of a blast cabinet inclosure, three to five abrasive blast wheels, elevator assembly, dust collector, monorail

system, spinners, automatic controls. It is used in conjunction with armor plate doors, paint booths, warm air makeup system and electric hoists. All installed in an operations building. Models vary in number of abrasive wheels assembled, smaller units have three wheels, larger ones five wheels.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 10350000

Unit of Issue Each

Installation Data:

Length 15 ft

Width 19 ft

Height 35 ft

Weight not available

Utilities Required:

Electricity, 220/440 volts,

Air--80 psi.

Production Capacity:

Varies with size of munitions.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

APE 1036, 1037, 1039.

Kits:

None.

APE 1036--BOOTH, PAINT SPRAY, BSR

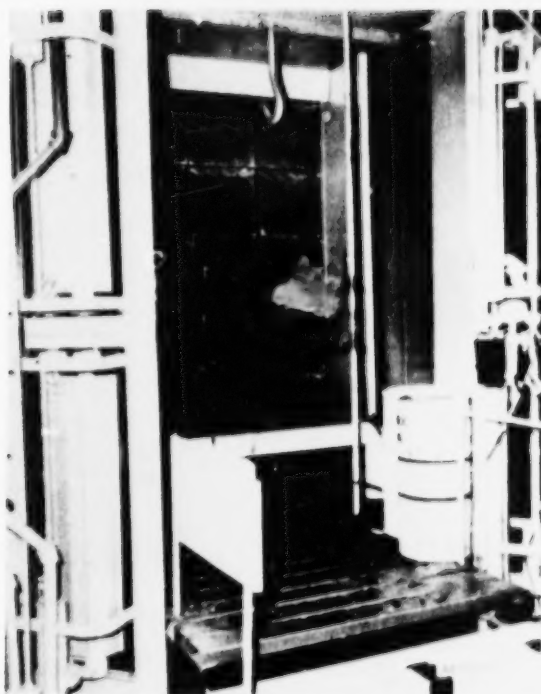


Figure 2-17.

Use:
Booth for spray painting bombs and
shells suspended from overhead
monorail conveyor.

Description:
Not available.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 10360000
 Unit of Issue Each
 Installation Data:
 Length not available
 Width not available
 Height not available
 Weight not available

Utilities Required:

220/440 VAC 60 Hz, 3 phase,
 2/1 amp.

Production Capacity:

Depends on item being processed.

Shipping Data:

Length not available
 Width not available
 Height not available
 Weight not available
 Cube not available

Associated Equipment:

APE 1035, 1037, 1039.

Kits:

None.

APE 1037--SYSTEM, WARM AIR MAKE-UP, BSR

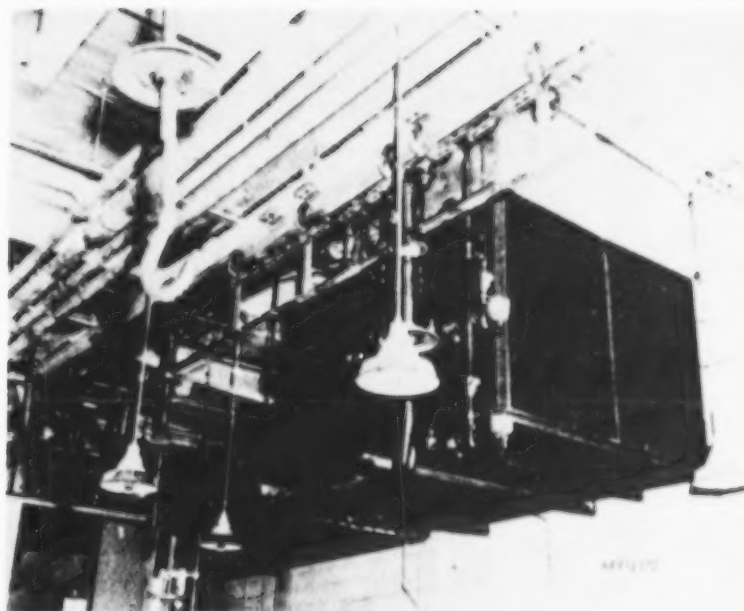


Figure 2-18.

Use:

To replace air, exhausted by paint spray booths, with warm air.

Description:

Not available.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 10370000
Unit of Issue Each

Installation Data:

Length 29 ft
Width 7 ft
Height not available
Weight not available

Utilities Required:

220/440 VAC 60 Hz, 3 phase,
22/11 amps and steam at 5 psi
to 40 psi.

Production Capacity:

17,500 CFM of air heated from
10F to 75F.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

APE 1035, 1036, 1039.

Kits:

None.

All Data on Pages 2-42 and 2-43, Including Figure 2-19 Deleted.

APE 1039--HOIST, ELECTRIC, BSR

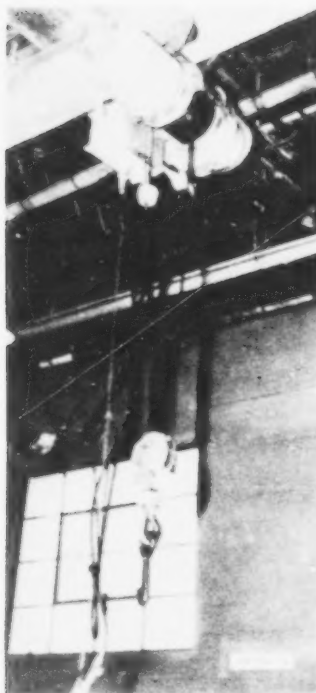


Figure 2-20.

Use:

To lift and move various projectiles and bombs up to 3000 pounds in weight. In the bomb service and renovation (BSR) building.

Description:

Commercial hoist with 1-1/2 ton capacity, powered with 3 HP motor. Installed Equipment.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 10390000

Unit of Issue Each

Installation Data:

Length not available

Width not available

Height not available

Weight not available

Utilities Required:

220/440, 60 cycle, 3 phase.

Production Capacity:

Not applicable.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

APE 1035, 1036, 1037.

Kits:

None.

APE 1042M3--MACHINE, DEBANDING

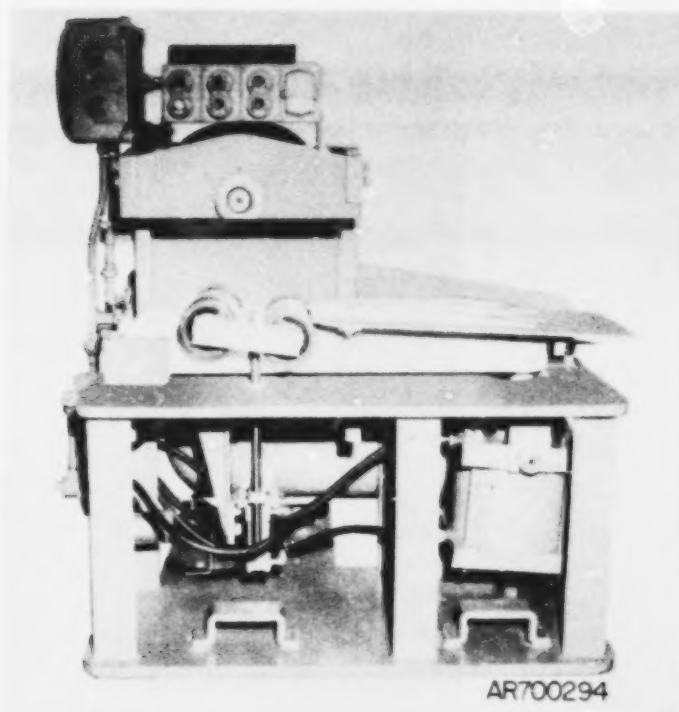


Figure 2-21.

Use:

The debanding machine was developed to remove rotating bands from 57MM through 155MM projectiles.

Description:

The machine consists of a frame, a work table, knurling wheel, electric motor, air cylinders, and controls.

Difference Between Models:
Not available.

Tabulated Data:

APE No. 10420000M3

Unit of Issue Each

Installation Data:

Length 51 in.

Width 68 in.

Height 54 1/2 in.

Weight not available

Utilities Required:

220/440/VAC, 3 phase, 60 Hz,
28.5/13.5 amps; air at 80 psi
and 105 cfm.

Production Capacity:
Depends on size and condition
of projectile.

Cube 99 cu ft
Weight 4380 lb

Associated Equipment:
None.

Shipping Data:

Length not available
Width not available
Height not available

Kits:

- 1042E002 - KIT, Debanding 57mm
Projectile
- 1042E003 - KIT, Debanding 75mm
Projectile
- 1042E004 - KIT, Debanding 76mm
Projectile
- 1042E005 - KIT, Debanding 90mm
Projectile
- 1042E006 - KIT, Debanding 105mm
Projectile
- 1042E007 - KIT, Debanding 120mm
Projectile
- 1042E008 - KIT, Debanding 155mm
Projectile

APE 1043--DRILL, PNEUMATIC, DEEP CAVITY



Figure 2-22.

Use:

The pneumatic deep cavity drill was developed to drill explosives from the nose end of artillery projectiles to a predetermined depth.

Description:

The machine consists of a pneumatic drill with a hollow shaft and a fly cutter blade. Explosive chips and dust are removed from the drilling operation by vacuum.

The drill shaft is held concentrically in the nose of the projectile by three threaded jaws that are engaged with the threads of the projectile.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 10430000
Unit of Issue Each

Installation Data:

Length 26 in.
Width 12 in.
Height 45 in.
Weight 83 lb

Utilities Required:

Air at pressure needed for
desired drill speed.

Production Capacity:

250 projectiles per hour.

Shipping Data:

Length 27 in.
Width 21 in.
Height 11 in.
Cube 3.6 cu ft
Weight 96 lb

Associated Equipment:

APE 1028, 2042, 2043.

Kits:

None.

APE 1044M1--SYSTEM, MONORAIL CONVEYOR

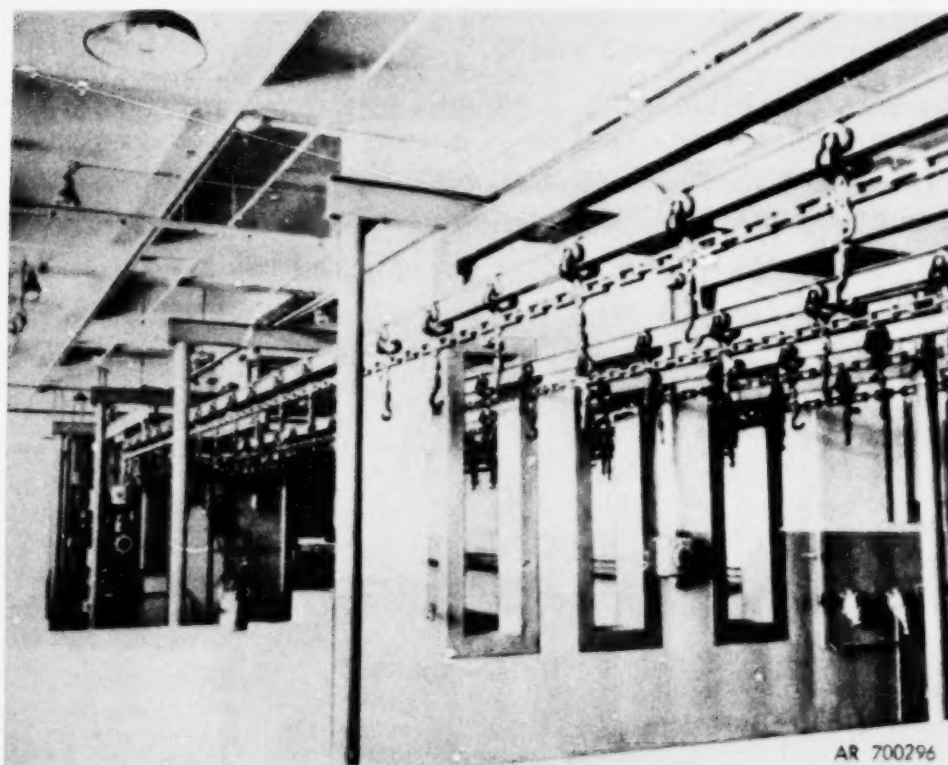


Figure 2-23.

Use:

The monorail conveyor system was designed to convey loaded projectiles and/or fixed rounds of ammunition through required processes.

Description:

The conveyor is the overhead monorail type. It is made up of monorail tracks, trolleys, conveyor chain, hooks, drive and take-up units, electrical controls, and track supports. This is installed

equipment requiring special layouts adaptable to various locations.

Difference Between Models:

M1 version has a start-up safety alarm.

Tabulated Data:

APE No. 10440000M1

Unit of Issue Each

Installation Data:

Peculiar in design configuration as to each plant layout.

Utilities Required:

220/440 vac, 3 phase, 60 Hz
9/4.5 amp.

Production Capacity:

Conveyor will carry loads up
to 100 pounds per lineal foot
at a rate of 5 feet per minute
to 20 feet per minute.

Shipping Data:

Varies by design configuration
of each layout.

Associated Equipment:

APE 1045M1, 1069M1, 1070M1,
1205M1, 1214M1, 1280M1, 2168.

Kits:

None.

APE 1045M1--BOOTH, PAINT SPRAY

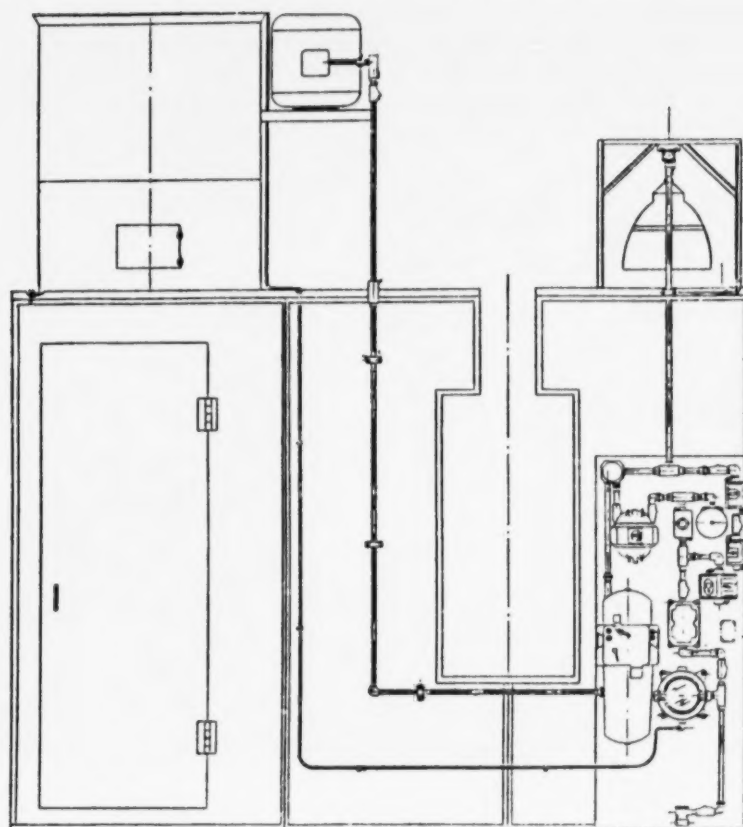


Figure 2-24.

Use:

The paint spray booth is used in production line painting of packing materials and ammunition items.

Description:

The booth, is a floor style, self supported, dry filter type, with 10 foot face opening. It is complete with exhaust fan system, automatic shut down control, mono-rail and roller conveyor openings.

Difference Between Models:

A Tech Data Package was developed to replace original purchase description, to insure conformity of design.

Tabulated Data:

APE No. 10450000M1

Unit of Issue.... Each

Installation Data:

Length..... 12 ft.

Width..... 10 ft. 6 in.

Height..... 9 ft plus max.
4 ft 6 in.

Exhaust Stack

Weight..... not available

Utilities Required:

220 vac, 3 phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

CRATE 1

Length 124 in.
Width 52 in.
Height 65 in.
Cube not available
Weight not available

CRATE 2

Length 92 in.
Width 61 in.
Height 42 in.
Cube not available
Weight not available

CRATE 3

Length 42 in.
Width 42 in.
Height 51 in.
Cube not available
Weight not available

Associated Equipment:

APE 1022M1 Conveyor, Powered Belt
APE 1044M1 System, Monorail
Conveyor

Kits:

None

All Data on Pages 2-54 and 2-55, Including Figure 2-25 Deleted.

APE 1052M1--KIT, AIR TEST

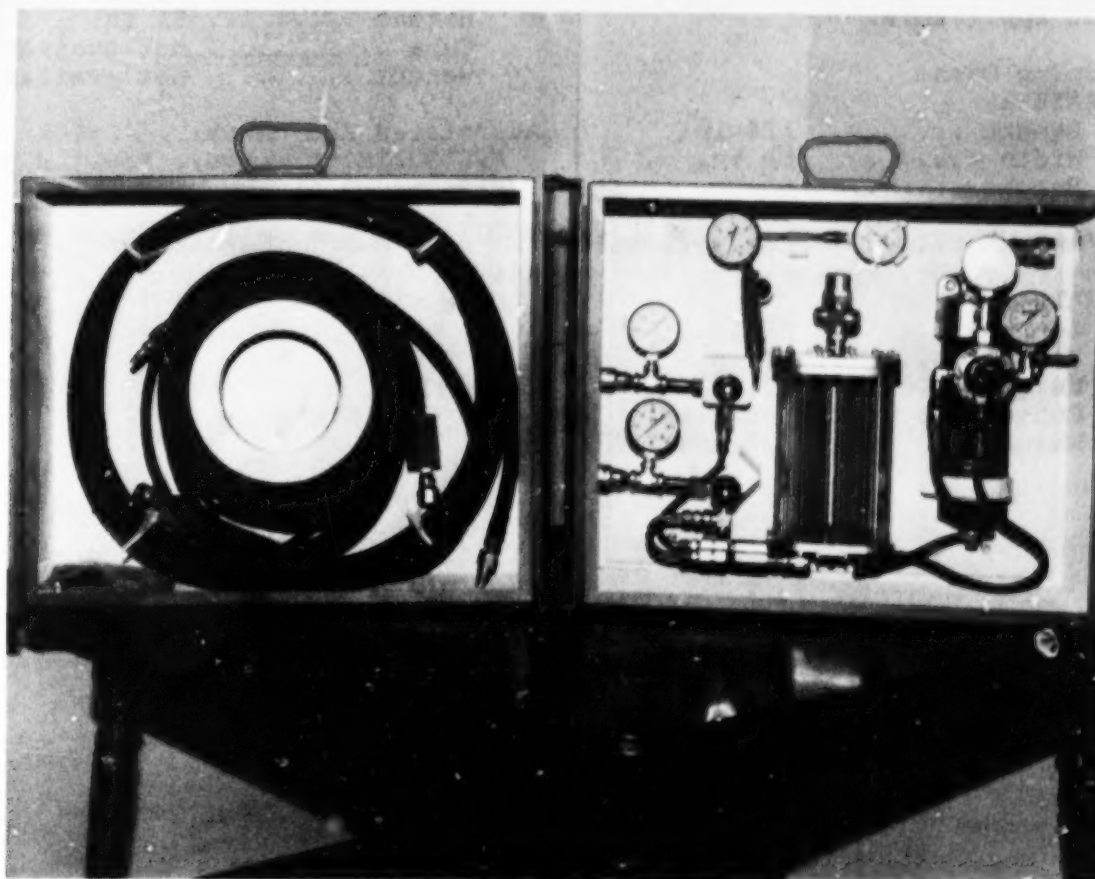


Figure 2-26.

Use:

The air test kit was designed to test large metal containers for air leaks.

Description:

The kit consists of two metal cases. The first case contains air regulators and a desiccant drying system to remove moisture from the air. The dry air is forced into a container being tested and the pressure gage is used to check for constant

pressure in the container for a predetermined length of time. The second case contains the necessary hoses to connect the container being tested to the compressed air source.

Difference Between Models:

The M1 has a configuration change to accomodate new water and oil extructor.

Tabulated Data:

APE No. 10520000M1

Unit of Issue Each

Installation Data:

Length 25 in. (di-
mensions are
for one case)
(dimensions
are for one
case)

Weight 134 lb (case
no. 1--74 lb;
case no. 2--
60 lb)

Width 9-1/2 in. (di-
mensions are
for one case)

Height 21-1/4 in.
(dimensions
are for one
case)

Weight 134 lb (case
no. 1--74 lb;
case no. 2--
60 lb)

Utilities Required:

Air at 30 psi.

Production Capacity:

Not applicable.

Shipping Data:

Length 28 in.

Width 21 in.

Height 25 in.

Cube 9 cu ft

Weight 190 lb

Associated Equipment:

None.

Kits:

None.

APE 1055M2--PANEL, FIRE CONTROL

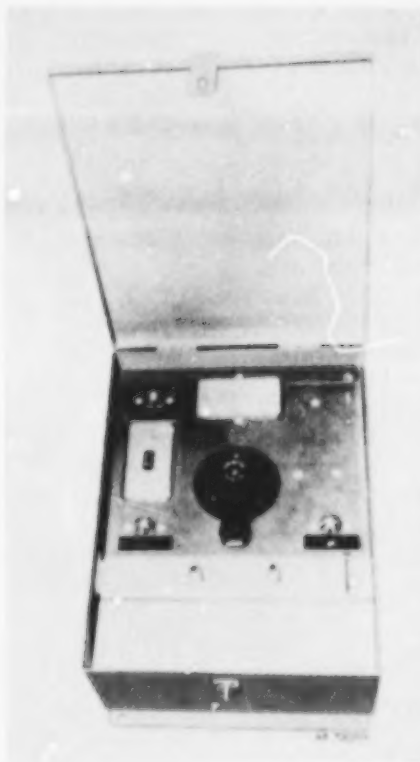


Figure 2-27.

Use:

The fire control panel is designed to provide a safe and convenient control of detonation operations from a single panel controlling seven separate blasting areas.

Description:

The control panel is mounted in a case with a cover which can be locked. Inside the case is a seven position rotary switch with

connections for seven pairs of firing leads. There are separate switches to fire the charges in each of the seven areas. Safety devices are provided to prevent accidental initiation of the charges.

Difference Between Models:

M2 has improved circuitry.
M3 is a new design completely replacing all previous models.
Fielding is anticipated in 1990/1991.

Tabulated Data:

APE No. 10550000M2

Unit of Issue Each

Installation Data:

Length 18 in.

Width 14 in.

Height 6-1/4 in.

Weight 27 lb

Utilities Required:

110 vac, single phase, 60 Hz
or manual blasting machine.

Production Capacity:

Not applicable.

Shipping Data:

Length 24 in.

Width 18 in.

Height 12 in.

Cube 3.0 cu ft

Weight 37 lb

Associated Equipment:

None.

Kits:

None.

APE 1056M2--MACHINE, BELL JAR TESTING

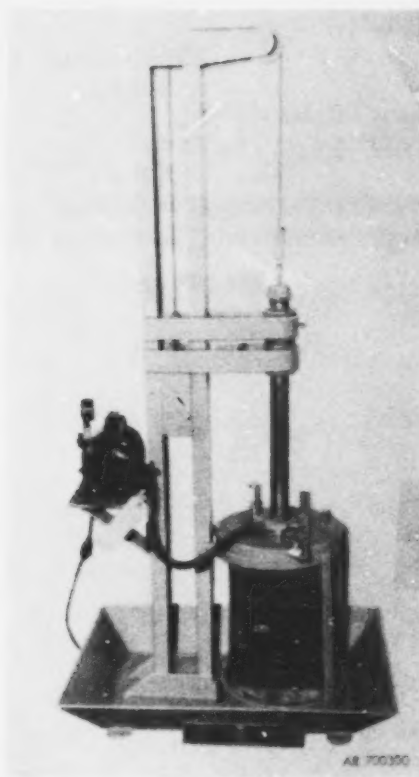


Figure 2-28.

Use:

The bell jar testing machine is used to vacuum test M8, M20, and M21 hermetically sealed small arms ammunition containers for leaks, and pressure test metal liners for M1917 small arms ammunition boxes for leaks.

Description:

The testing machine consists of a base and stand assembly, a combination vacuum and pressure pump, a bell jar and a lid assembly. This item is being replaced by the APE 1958M1.

Difference Between Models:
Not available.

Tabulated Data:

APE No. 10560000M2
Unit of Issue Each

Installation Data:

Length 33-1/2 in.
Width 24 in.
Height 69 in.
Weight 500 lb

Utilities Required:

115 vac, single phase, 60 Hz,
3.2 amp.

Production Capacity:

Not applicable.

Shipping Data:

Length 40 in.
Width 30 in.
Height 72 in.
Cube 50 cu ft
Weight 605 lb

Associated Equipment:

None.

Kits:

None.

APE 1061--COLLECTOR, DUST AND TNT

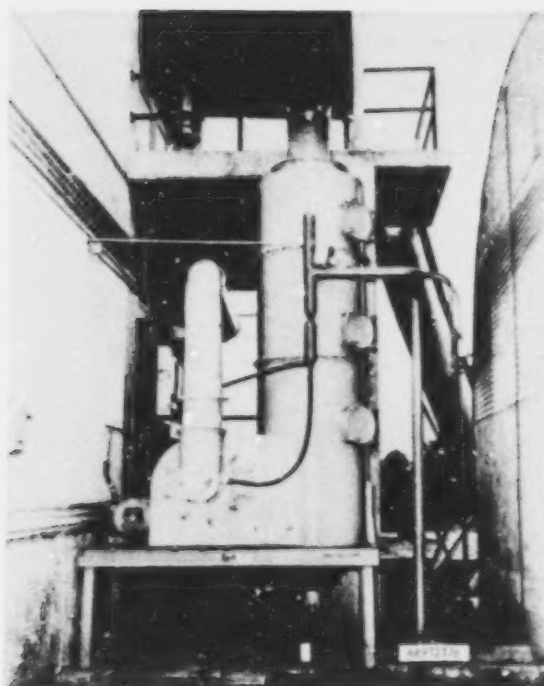


Figure 2-29.

Use:

To collect air entrained TNT dusts, having a specific gravity of 1.62 from areas where maximum allowable concentration of dusts must be below 1.5 milligrams per cubic meter for an 8 hour work day.

Description:

Not available.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 10610000

Unit of Issue Each

Installation Data:

Length 87 in.

Width 71 in.

Height 166 in.

Weight 2500 lbs

Utilities Required:

220/440 VAC, 60 Hz, 3 phase,

22/11 amps. Water at 60 psi

and 20 gpm.

Production Capacity:

3,000 cfm.

Shipping Data:

Length 98 in.

Width 84 in.

Height 181 in.

Cube 862 cu ft

Weight 3040 lbs

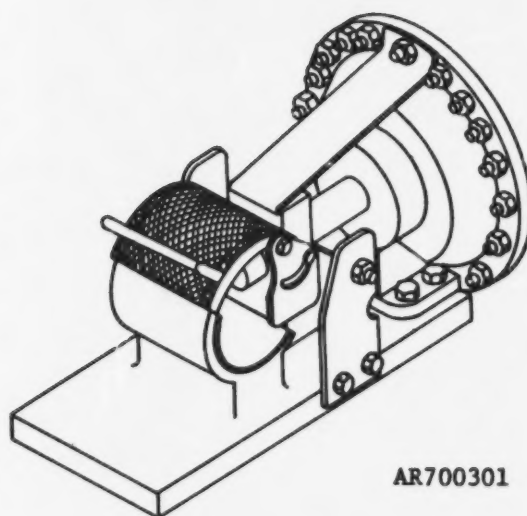
Associated Equipment:

APE 1300M1.

Kits:

None.

APE 1065--VISE, PNEUMATIC



AR700301

Figure 2-30.

Use:

The pneumatic vise is used to hold ammunition items for assembly and disassembly. Sizes range from 37MM through 120MM. It is also used to compress the fuze head on M204A1 grenade fuzes.

Description:

The vise consists of a frame with an air brake chamber mounted on the frame. A bushing is assembled to the pushrod of the air brake.

Difference Between Models:
Original design.

Tabulated Data:

APE No.	10650000
Unit of Issue	Each
Installation Data:	
Length	17-5/16 in.
Width	9-9/16 in.
Height	9-1/2 in.
Weight	72 lb
Utilities Required:	
Air at 80 psi and 81 cfm.	

Production Capacity:
Not applicable.

Shipping Data:

Length 26 in.
Width 15 in.
Height 14 in.
Cube 1.8 cu ft
Weight 90 lb

Associated Equipment:
None.

Kits:

1065E001 KIT, Device, Compression for M204A1 Fuze Head
1065E002 KIT, Secure 37MM: M51B1A1, M54, M54A1, M55A1, M59, M63
1065E003 KIT, Secure 40MM; M81A1
1065E004 KIT, Secure 3.5-inch Rocket
1065E005 KIT, Secure 75MM: M48, M64, T65E11, M66, M88A1, M309, M309A, M309A1, M311, M311A1, M334, M349
1065E006 KIT, Secure 76MM & 3"/50: M42A1, M62, M62A1, M93A1, M166E2, M312, M312B1, M315, M339, M340A1, M352, M361, 3"/50 (All MKS & MODS)

1065E007 KIT, Secure 90MM: M33, M71, M77, T91, T142E5, M304, M304A1, M313, M317A2, M318A1, M332, M333, M336, M353, M382
1065E008 KIT, Secure 105MM: M1, M45, M60, M84B1, M84BE, T139E44, M314A2B1, M324, M325, M326, M327, M328, M360, 4.2 in M329
1065E009 KIT, Secure 60MM: M49A2, M50A2
1065E010 KIT, Secure 81MM: M43A1
1065E011 KIT, Secure 120MM: T15E1, T16E1, M61A1, M73, T115E3, T116E6, T147E5, M358, M359
1065E012 KIT, Secure 57MM: T18E1, M303, M307, M307A1
1065E013 KIT, Secure 81MM: M57, M362
1065E015 KIT, Remove Boom Adapter from Boom Assembly of 90MM: M371
1065E016 KIT, Safety Guard
1065E017 KIT, Remove Boom Adapter from Boom Assembly of 105MM: M341 cartridge
1065E049 KIT, Accessory, M72 Rocket, 66MM, Heat Round

APE 1066--CAN SEALING MACHINE

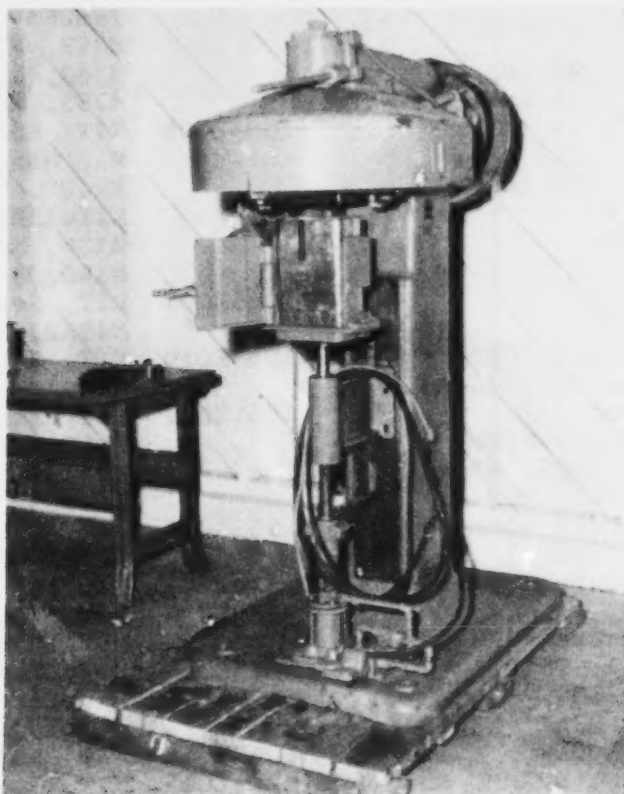


Figure 2-30.1.

Use:

To hermetically seal M20 and M21 containers opened during surveillance cyclic and special inspections and small arms production line sealing operations.

Description:

Not available.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 10660000
 Unit of Issue Each
 Installation Data:
 Length 48 in.
 Width 36 in.
 Height 72 in.
 Weight 2250 lb

Utilities Required:

220/440 VAC, 60 cycle, 3 phase, 9/4.5 amps.

Production Capacity:

Not available.

Shipping Data:

Length Not available
 Width Not available
 Height Not available
 Cube Not Available
 Weight Not Available

Associated Equipment:

None.

Kits:

None.

APE 1069M1--BOOTH, PAINT SPRAY

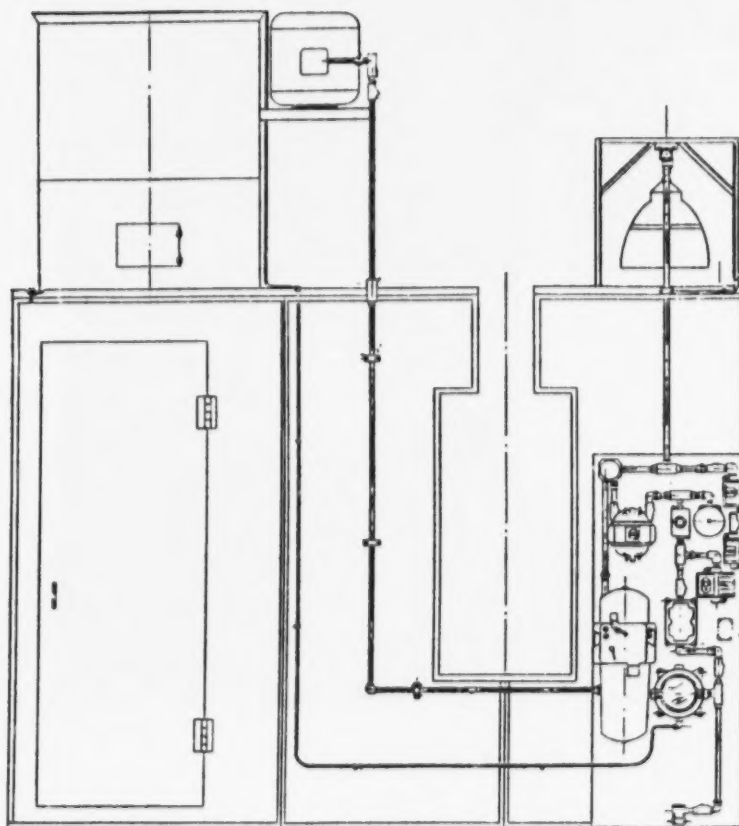


Figure 2-31.

Use:

The paint spray booth is used in production line painting of packing materials and ammunition items.

Description:

The booth is a floor style, self supported, dry filter type with a 7 foot face opening. It is

complete with exhaust fan system, automatic shut down control, monorail and roller conveyor openings.

Difference Between Models:

A Tech Data Package was developed to replace original purchase description, to insure conformity of design.

(2-66.1 Blank)/2-66.2

Tabulated Data:

APE No. 10690000M1
 Unit of Issue Each
 Installation Data:
 Length 12 ft
 Width 7 ft 6 in.
 Height 9 ft plus
 maximum 4 ft 6 in.
 exhaust stack
 Weight Not available

Utilities Required:
 220/440 vac, 3 phase, 60 Hz.
 Production Capacity:
 Not applicable.

Shipping Data:

Length Not available
 Width Not available
 Height Not available
 Cube Not available
 Weight Not available

Associated Equipment:

APE 1022M1 Conveyor, Powered
 Belt
 APE 1044M1 System, Monorail
 Conveyor

Kits:

None.

APE 1070M1--BOOTH, PAINT SPRAY

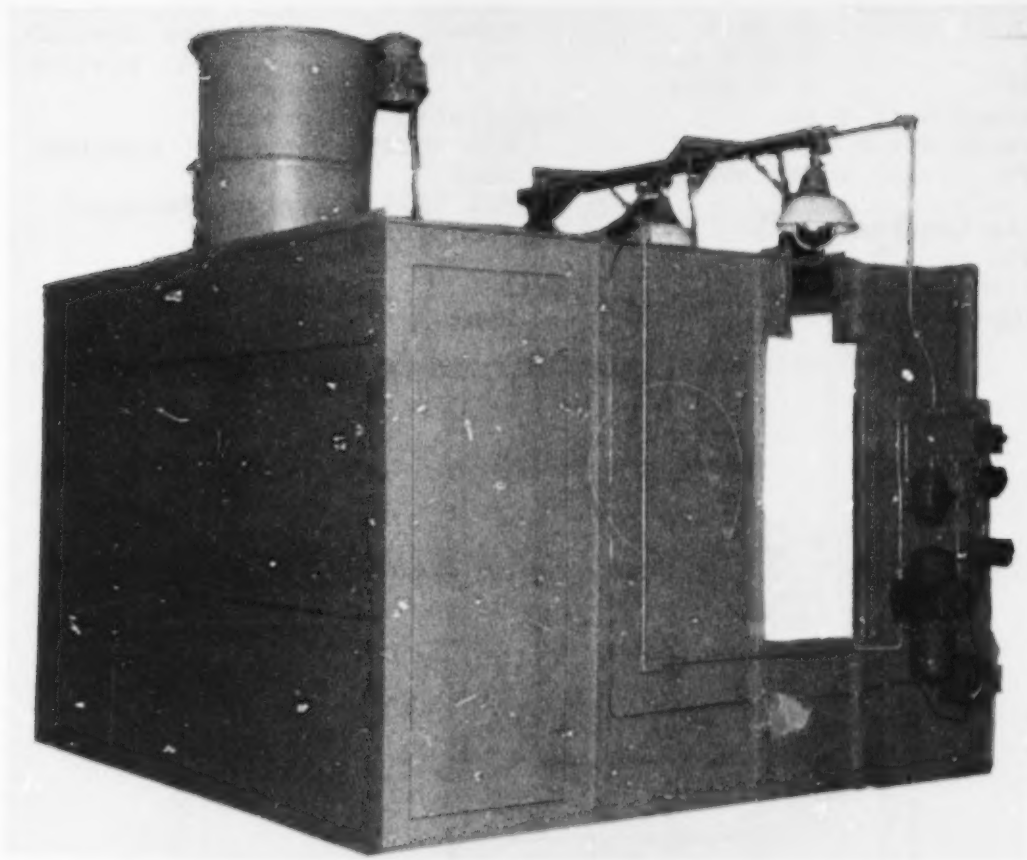


Figure 2-32.

Use:

The paint spray booth is used in production line painting of packing materials and ammunition items.

Description:

The booth is a floor style, self supported, dry filter type, with 12 foot face opening. It is com-

plete with exhaust fan system, automatic shut down control, mono-rail and roller conveyor openings.

Difference Between Models:

A Tech Data Package was developed to replace original purchase description, to insure conformity of design.

Tabulated Data:

APE No. 10700000M1

Unit of Issue .. Each

Installation Data:

Length 12 ft

Width 12 ft 6 in.

Height 9 ft plus

maximum 4 ft 6 in.

exhaust stack

Weight not available

Utilities Required:

220 vac, 3 phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length Not available

Width Not available

Height Not available

Cube Not available

Weight Not available

Associated Equipment:

APE 1022M1 Conveyor, Powered

Belt

APE 1044M1 System, Monorail

Conveyor

Kits:

None.

APE 1072M2--CLOSED CIRCUIT TELEVISION SYSTEM
FOR HAZARDOUS ENVIRONMENTS

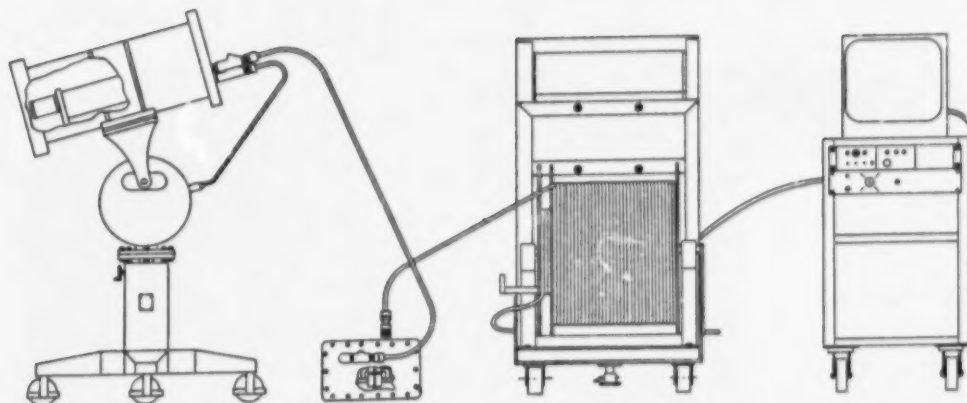


Figure 2-33.

Use:

The closed circuit television is used to view hazardous operations performed in a remote area.

Description:

The closed circuit television consists of the following major assemblies:

A camera assembly made up of a closed circuit television camera with zoom lens, (encased in a explosion proof housing) and a pan/tilt unit, which are mounted on a camera dolly.

A cable cart assembly with cable

Reel, casters and foot operated floor lock.

A monitor assembly consisting of a television monitor, power source, camera controls, pan/tilt unit controls, and zoom lens controls. All components are located on shelves of a cart type dolly.

Difference Between Models:

The M2 reflects a change in vendors. The original vendor listed as suggested source of supply for APE 1072 went out of business. All provisions of the APE 1072M1 model remain the same.

Tabulated Data:

APE No. 10720000M2
 Unit of Issue Each
 Installation Data:

Overall Dimensions

Camera
 Assembly
 Length 42 in.
 Sidth 42 in.
 Height 60 to 78 in.
 Weight 282 lbs
 Occupied
 Floorspace 12-1/4 sq. ft.

Cable Cart
 Assembly
 Length 31 in.
 Width 34 in.
 Height 51 in.
 Weight 430 lbs
 Occupied
 Floorspace 7 1/3 sq. ft.

Monitor
 Assembly
 Length 21-1/2 in.
 Width 26 in.
 Height 50-1/2 in.
 Weight 120 lbs
 Occupied
 Floorspace 3-9/10 sq. ft.

Utilities Required:
 115 VAC, 60HZ, 10 AMP

Production Capacity:
 Not applicable

Shipping Data:

Camera
 Assembly
 Length 55 in.
 Width 43 in.
 Height 55 in.
 Cube 75.27 cu ft
 Weight 410 lbs

Cable Cart
 Assembly
 Length 53 in.
 Width 38 in.
 Height 53 in.
 Cube 61.27 cu ft
 Weight 758 lbs

Monitor*
 Length 15 in.
 Width 18 in.
 Height 15 in.
 Cube Not available
 Weight 55 lbs

*Shipping weight shown for
 monitor only and does not
 include the monitor dolly.

Associated Equipment:
 None.

Kits:
 None.

All Data on Pages 2-72 and 2-73, Including Figure 2-34 Deleted.

APE 1086--TANK, HOT DIP, PORTABLE

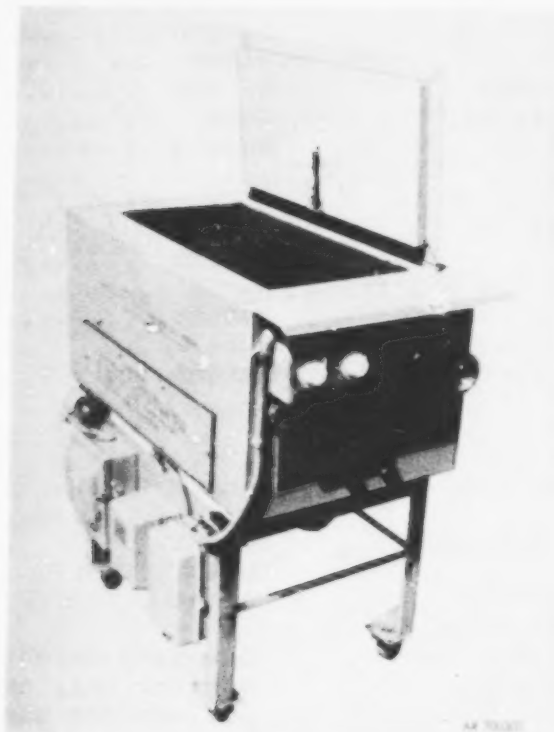


Figure 2-35.

Use:

The portable hot-dip tank is used to melt and keep in a molten state compounds for sealing wrappings and packages.

Description:

The hot-dip tank is an electrically heated tank on wheels. It has a lid with fusible link so that it automatically closes if a fire should break out. Dual thermostats are provided. Tank inside dimensions are 12" inside X 24" long X 12" deep.

Difference Between Models:

Original design.

Tabulated Data:

APE NO. 10860000

Unit of Issue Each

Installation Data:

Length 40 in.

Width 18 in.

Height 36 in.

Weight 275 lb

Utilities Required:

208/240 vac, 3 phase, 60 Hz,
30/15 amp.

Production Capacity:

Not applicable.

Shipping Data:

Length 47 in.
Width 22 in.
Height 41 in.
Cube 24.5 cu ft
Weight 312 lb

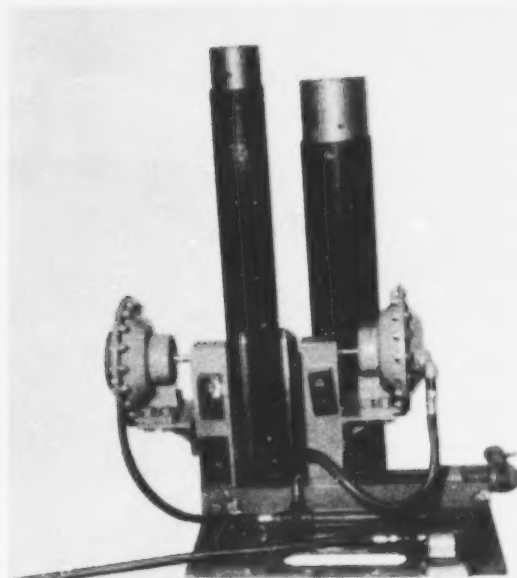
Associated Equipment:

None.

Kits:

None.

APE 1088--MACHINE, HOLE PUNCHING



AR 700306

Figure 2-36.

Use:

The hole punching machine is used to punch two pressure relief holes in fiber containers for 37MM through 120MM ammunition.

Description:

The machine consists of a frame, a stationary guide block, a movable guide block, two air brake chambers, two dies, and a foot operated air valve.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 10880000
Unit of Issue Each

Installation Data:

Length 30 in.
Width 18 in.
Height 17 in.
Weight 90 lb

Utilities Required:

Air at 80 psi and 70 cfm.

Production Capacity:

280 containers per hour.

Shipping Data:

Length 34 in.
Width 21 in.
Height 21 in.
Cube 9.0 cu ft
Weight 125 lb

Associated Equipment:

None.

Kits:

None.

All Data on Pages 2-78 through 2-81,
Including Figures 2-37 and 2-38 Deleted.

APE 1099--DECLIPPER, HAND, EIGHT ROUND

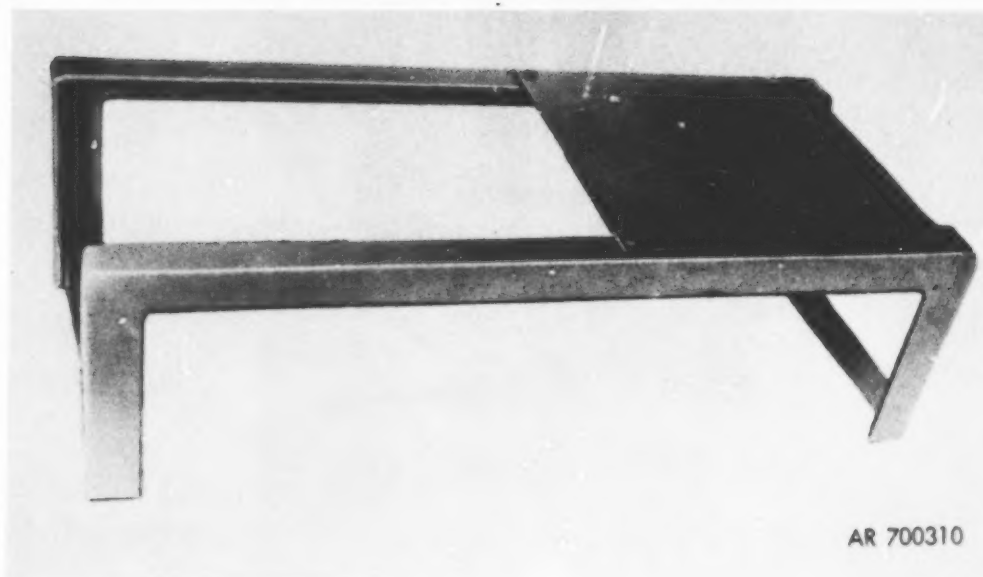


Figure 2-39.

Use:

The hand declipper is used to remove caliber .30 & 7.62mm cartridges from eight round clips by hand operation.

Description:

The declipper consists of a frame with a slot for the clipped cartridges. Below the slot is a group of metal fingers which spread the clip apart as it is pressed down which releases the cartridges.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 10990000

Unit of Issue Each

Installation Data:

Length 17 in.

Width 7-1/2 in.

Height 5-1/2 in.

Weight 5-1/2 lbs

Utilities Required:

None.

Production Capacity:
16 clips per minute (128 cartridges per minute).

Cube 4 cu ft
Weight 8 lb

Shipping Data:

Length 18 in.
Width 8 in.
Height 6 in.

Associated Equipment:
None.

Kits:
None.

APE 1105M1--MACHINE, SWING BRUSH

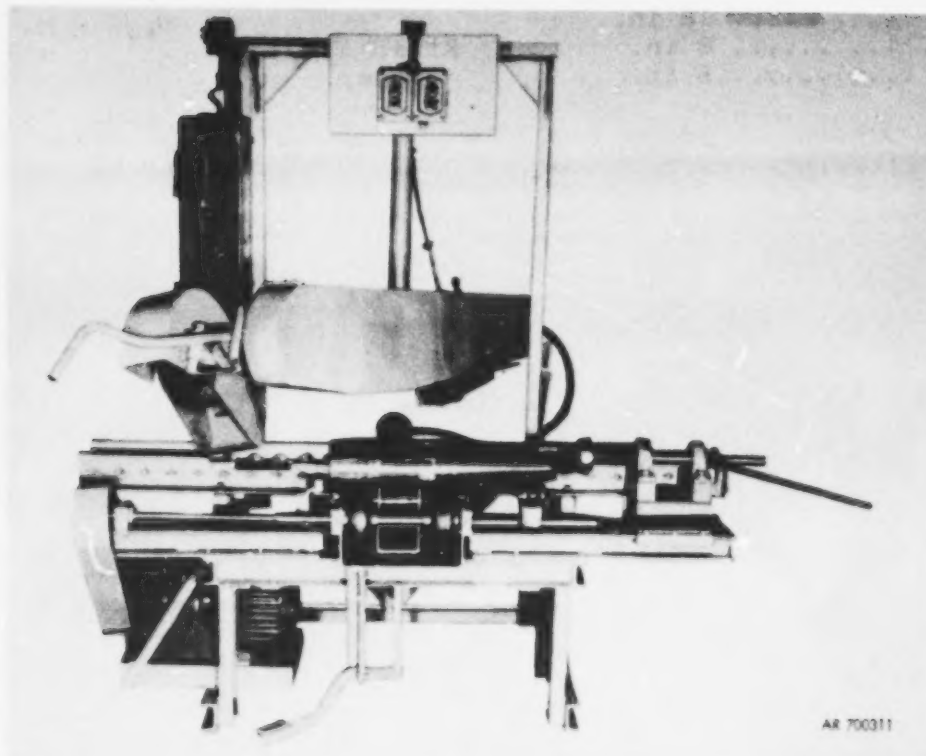


Figure 2-40.

Use:

The swing brush machine is used to clean and derust projectiles through 240MM and cartridge storage cases. The cartridge storage cases are the 75MM: M173; 90MM: M159; M155MM: M13, M14, and MK1; and 8-inch: M18 and M19.

Description:

The machine consists of a frame, projectile rotating assembly, a power driven wire brush suspended above the projectile rotating assembly.

Difference Between Models:

The M1 has improved safety features.

Tabulated Data:

APE No. 11050000M1

Unit of Issue Each

Installation Data:

Length 72 in.

Width 72 in.

Height 73-5/8 in.

Weight 1800 lb

Utilities Required:

220/440 vac, 60 Hz, 3 phase,
18.5/9.3 amp.

Production Capacity:
Depends on size and condition
of item being cleaned or de-
rusted.

Shipping Data:

Length 83 in.
Width 83 in.
Height 88 in.
Cube 350.8 cu ft
Weight 2100 lb

Associated Equipment:
None.

Kits:

1105E001 KIT, Derust 75MM
through 155MM Pro-
jectiles
1105E002 KIT, Derust 8-inch
through 240MM Projec-
tiles
1105E003 KIT, Derust Cartridge
Storage Cases 75MM
through 8-inch
1105E004 KIT, Dust Collector

APE 1106M1--MACHINE, PRIME AND DEPRIME

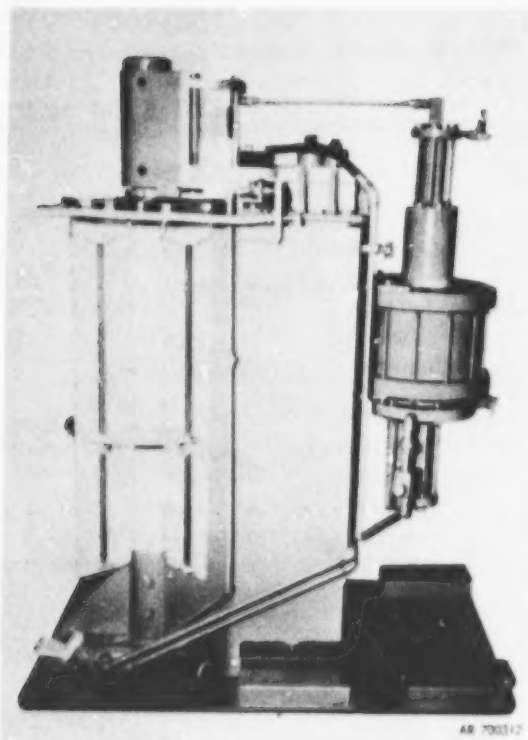


Figure 2-41.

Use:

The prime and deprime machine is used to deprime 37MM through 106mm cartridge cases with screw and press type primers prior to cartridge case salvage; deprime 37MM through 106mm cartridge cases with press type primers prior to repriming; and press type primers into 37MM through 106mm cartridge cases.

Description:

The machine consists of a steel barricade, a four station index turntable, an air-hydraulic unit which supplies the power to operate the punch cylinder, and a series of valves and controls to operate the machine.

Difference Between Models:

The M1 machine has new parts added and different part numbers.

Tabulated Data:

APE No. 11060000M1
Unit of Issue Each

Installation Data:

Length 36 in.
Width 54 in.
Height 71 in.
Weight 3120 lb

Utilities Required:

Air at 100 psi and 105 cfm.

Production Capacity:

Dependent on operation
being performed.

Shipping Data:

Length 60 in.
Width 48 in.
Height 84 in.
Cube 140 cu ft
Weight 3370 lbs

Associated Equipment:

APE 2178

Kits:

1106E001 KIT, Repair Power Pack
1106E003 KIT, Prime or Deprime
37MM: M17 Cartridge
Cases

1106E004 KIT, Prime or Deprime
37MM: M16, MK1, and
MK2 Cartridge Cases
1106E005 KIT, Prime or Deprime
40MM: M25 Cartridge
Cases
1106E006 KIT, Prime or Deprime
57MM: M30 Cartridge
Cases
1106E007 KIT, Prime or Deprime
57MM: M23, 75MM:
M35, or 76MM: M26
Cartridge Cases
1106E008 KIT, Prime or Deprime
75MM: M5, M9, or M18
Cartridge Cases
1106E009 KIT, Prime or Deprime
75mm; M31, 76MM: M88
or M101 Cartridge Cases
1106E010 KIT, Prime or Deprime
90MM: M19, M27, or
M108; 105MM: M32,
M90, or M95; 106MM:
M93 or M94 Cartridge
Cases
1106E011 KIT, Prime or Deprime
105MM: M14 or M15
Cartridge Cases
1106E013 KIT, Prime or Deprime
3-inch: MK7, MOD 0
Cartridge Cases

APE 1114--LINK-DELINK MACHINE, 7.62MM

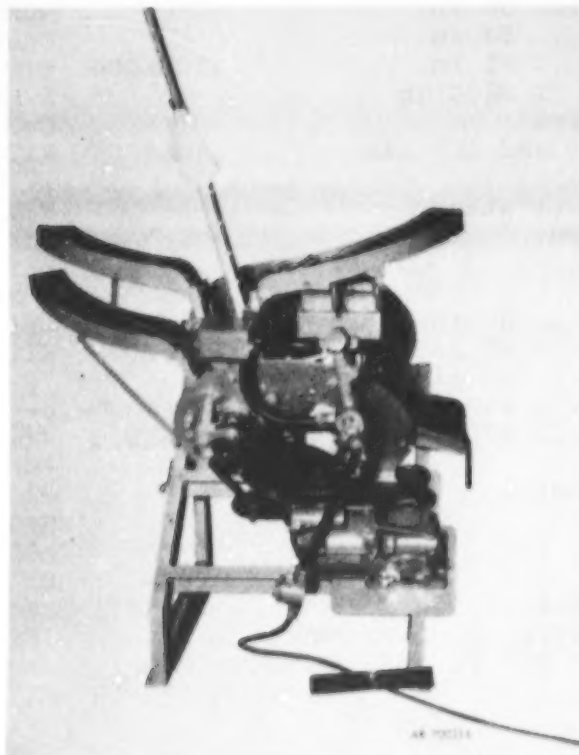


Figure 2-42.

Use:

The link-delink machine is used to link and/or delink 7.62MM cartridges from M13 links. Machine is capable of handling straight or ratio pack ammunition. Ratio pack or ratio replacement must be in a sequence of five.

Description:

The machine is a drum type link-delink machine. It consists of a frame, drum, ejector rods, a link feed assembly, a cartridge feed assembly with three cartridge feed trays, and an electric motor.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 11140000
Unit of Issue Each
Installation Data:
Length 40 in.
Width 50 in.
Height 60 in.
Weight 624 lb

Utilities Required:

115/230 vac, single phase, 60
Hz, AC, 5.2/2.6 amps.

Production Capacity:

300 cartridges per minute.

Shipping Data:

Length 64 in.
Width 41 in.
Height 57 in.
Cube 88.6 cu ft
Weight 824 lb

Associated Equipment:

None.

Kits:

1114E001 KIT, Blank Adapter

APE 1118M2--MACHINE, FUZE DISASSEMBLY

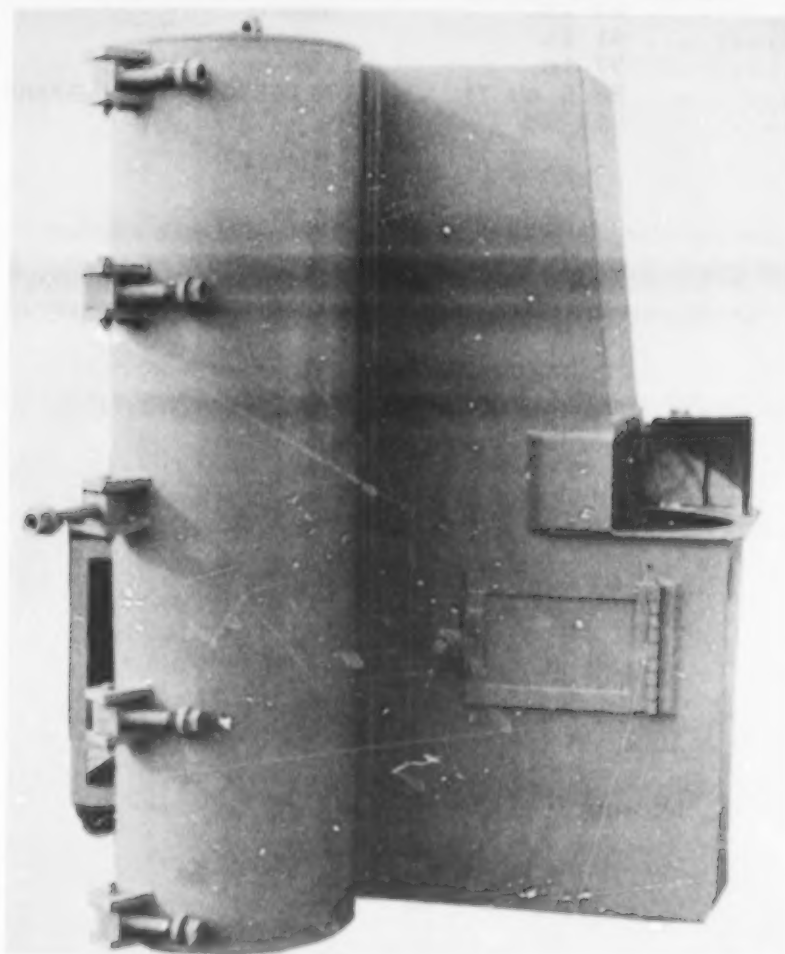


Figure 2-43.

Use:

The fuze disassembly machine is used to remove the booster assembly from bomb, artillery, and mortar fuzes. Operation is completely shielded.

Description:

The machine consists of an operational shield, an indexing turntable, a drive head assembly, and an air motor with necessary controls for automatic operation.

Difference Between Models:

The M2 model of the machine has a completely inclosed shield and machine mechanism mounted on tracks for removal from shield.

Tabulated Data:

APE No.	11180000M2
Unit of Issue	Each
Installation Data:	
Length	57 in.
Width	34-1/4 in.
Height	89-5/8 in.
Weight	2525 lb

Utilities Required:
 Air at 90 psi and 150 cfm.
 Production Capacity:
 3000 fuzes per shift.

Shipping Data:

Length 59 in.
 Width 51 in.
 Height 102 in.
 Cube 204.7 cu ft
 Weight 3040 lb

Associated Equipment:

None.

Kits:

1118E001	KIT, Remove Booster from Fuzes AN M103, M139, M140, M163, M164, M165, and M167.	1118E006	KIT, Remove Booster from Fuzes, M147 and M155
1118E002	KIT, Remove head from Fuze PD M52A2 60MM and 81MM Mortar	1118E007	KIT, Remove Booster from Fuze: M52
1118E003	KIT, Remove Booster from Fuze, M145	1118E010	KIT, Remove Bottom Closing Screw Assembly from Fuze: M78 CP
1118E004	KIT, Remove Booster from Fuzes, M110, M158, and M193	1118E011	KIT, Remove and Replace Bottom Closing Screw of Fuze: M48, M51 and M500
1118E005	KIT, Remove Booster from Fuzes, M120 and M170	1118E012	KIT, Remove Booster from Fuze: M51A5, M500, M502A1, M508, and M518
		1118E013	KIT, Separate Booster Cup from M21A4 Booster Assembly
		1118E016	KIT, Remove Fuze Body from Fuze Head, M62 BD Fuze
		1118E017	KIT, Remove Auxiliary Booster from M90 PD Fuze
		1118E018	KIT, Remove M41 Detonator Assembly from M404A2 Fuze
		1118E019	KIT, Remove Detonator Cap Housing from M404A1 Fuze
		1118E020	KIT, Remove Booster from Fuze: M524

APE 1122--TOOL SET, MORTAR FUZE RENOVATION

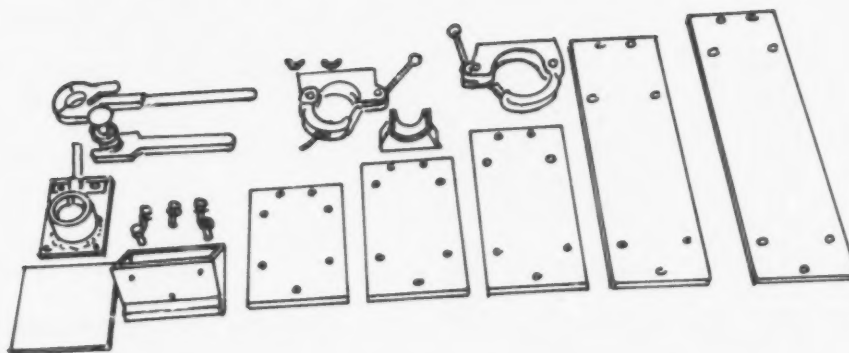


Figure 2-44.

Use:

The mortar fuze renovation tool set is used to remove the fuze heads from M52A2 fuzes and replace them with T336E7 or T336E10 fuze heads.

Description:

The tool set consists of five back plate assemblies, a projectile holding device, an M52A2 fuze disassembly wrench, a T336E7 assembly wrench, and a T336E10 assembly wrench.

Difference Between Models:
Original

Tabulated Data:

APE No. 11220000

Unit of Issue Each

Installation Data:

Length 26 in.

Width 11 in.

Height 7-3/4 in.

Weight 120 lb

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 30 in.
Width 15 in.
Height 10 in.
Cube 2.3 cu ft
Weight 190 lb

Associated Equipment:

None.

Kits:

None.

APE 1123--DEVICE, SHAKER, BLACK POWDER

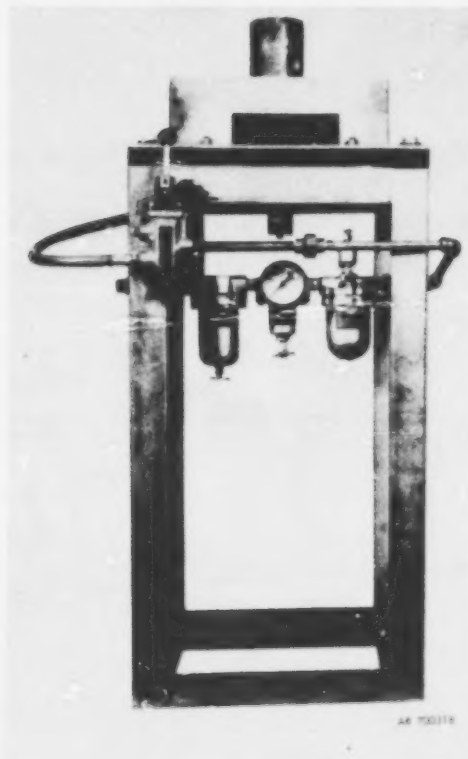


Figure 2-45.

Use:

The black powder shaker device is used to level the black powder in 75MM, 76MM, 90MM, and 105MM blank cartridges prior to inserting the retaining disk.

Description:

The device consists of a frame, a pneumatic shaker, and a control valve.

Differences Between Models:

Original design.

Tabulated Data:

APE No.	11230000
Unit of Issue	Each
Installation Data:	
Length	21-3/4 in.
Width	13-3/4 in.
Height	35-1/2 in.
Weight	400 lbs
Utilities Required:	
Air at 80 psi and 80 cfm.	
Production Capacity:	
600 cartridges per hour.	

Shipping Data:

Length 24 in.
Width 16 in.
Height 40 in.
Cube 9 cu ft
Weight 475 lbs

Associated Equipment:

None.

Kits:

None.

APE 1124--TOOL, RETAINER RING EXPANDER

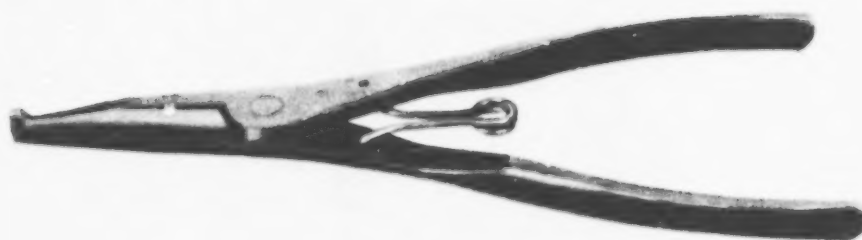


Figure 2-46.

Use:

The retainer ring expander tool is used to expand and remove retainer rings from M6 and M15 mines.

Description:

The tool is a commercial type plier for expanding retainer rings.

Difference Between Models:
Original design.

Production Capacity:
Not applicable.

Tabulated Data:

APE No. 11240000
Unit of Issue Each
Installation Data:
Length 8-3/16 in.
Width 2-1/8 in.
Height 3/8 in.
Weight 64 lb
Utilities Required:
None.

Shipping Data:

Length 9 in.
Width 3 in.
Height 1 in.
Cube 27 cu in
Weight 1 lb

Associated Equipment:
None.

Kits:
None.

APE 1128M1--WRENCH, FUZEWELL LINER

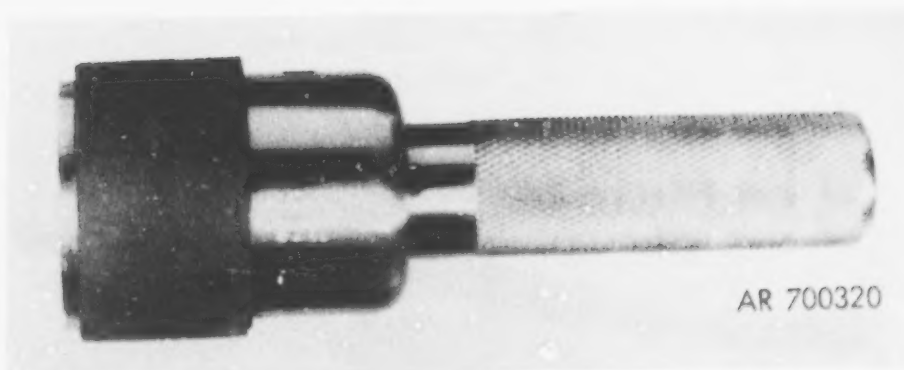


Figure 2-47.

Use:

The fuze well liner wrench is used to assemble or remove screw type fuze well liners from projectiles. It can be used with an impact wrench.

Description:

The wrench consists of a handle or shaft, a rubber gripper, and the hardware which assembles the parts together.

Difference Between Models:
The basic wrench has a rubber collar which expands when turned counterclockwise. The M1 model has a solid rubber collar.

Tabulated Data:

APE No. 11280000M1
Unit of Issue Each

Installation Data:

Length 5 in.
Width 2 in.
Height 2 in.
Weight 2 lb

Utilities Required:
None.

Production Capacity:
350 liners per hour.

Shipping Data:

Length 6 in.
Width 3 in.
Height 3 in.
Cube 03 cu ft
Weight 3 lb

Associated Equipment:
None.

Kits:
None.

APE 1137--MACHINE, TAPING, SMALL ITEMS

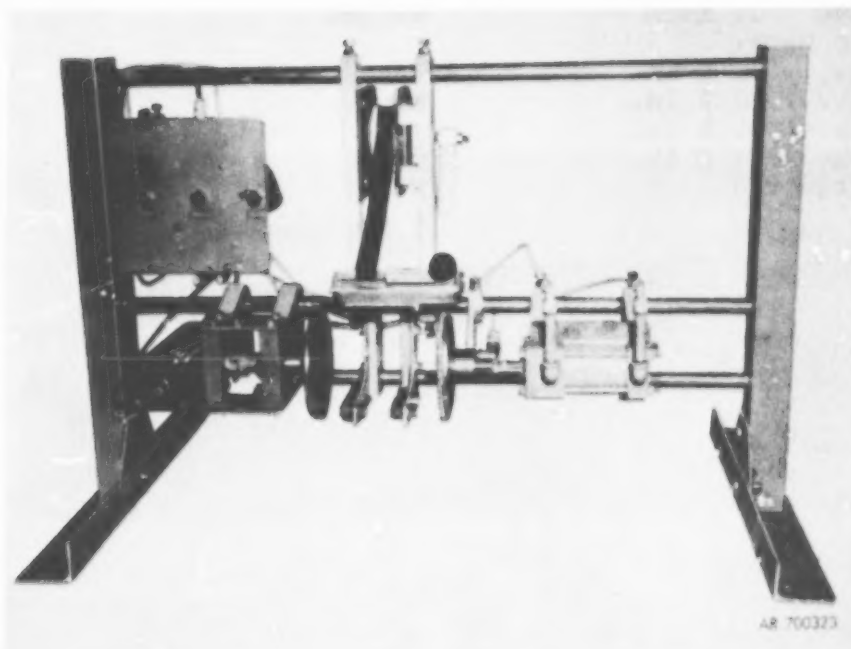


Figure 2-48.

Use:

The small items taping machine is used to apply tape to fiber and metal containers ranging in size from 4 inches to 14 inches in length with a maximum diameter of 5-1/2 inches.

Description:

The machine consists of an angle iron frame, tied together with

three 7/8-inch rods. The two lower rods are utilized to hold the drive head with 360-degree actuator air cylinder, container holder brackets, and an idler head mounted on a 2-inch bore, 2-inch stroke, air cylinder. The cylinders are controlled by two 1/4-inch pilot operated valves connected to four bleed valves.

Difference Between Models:
Original design.

Production Capacity:
330 containers per hour.

Tabulated Data:

APE No. 11370000
Unit of Issue Each
Installation Data:
Length 40 in.
Width 17-3/4 in.
Height 24-13/16 in.
Weight 125 lb
Utilities Required:
Air at 90 psi and 20 cfm.

Shipping Data:

Length 44 in.
Width 24 in.
Height 28-1/2 in.
Cube 17.5 cu ft
Weight 185 lb

Associated Equipment:
None.

Kits:

1137E001 KIT, Tape Cutter

APE 1140M2--FIXTURE, FUZEWELL LINER REMOVAL

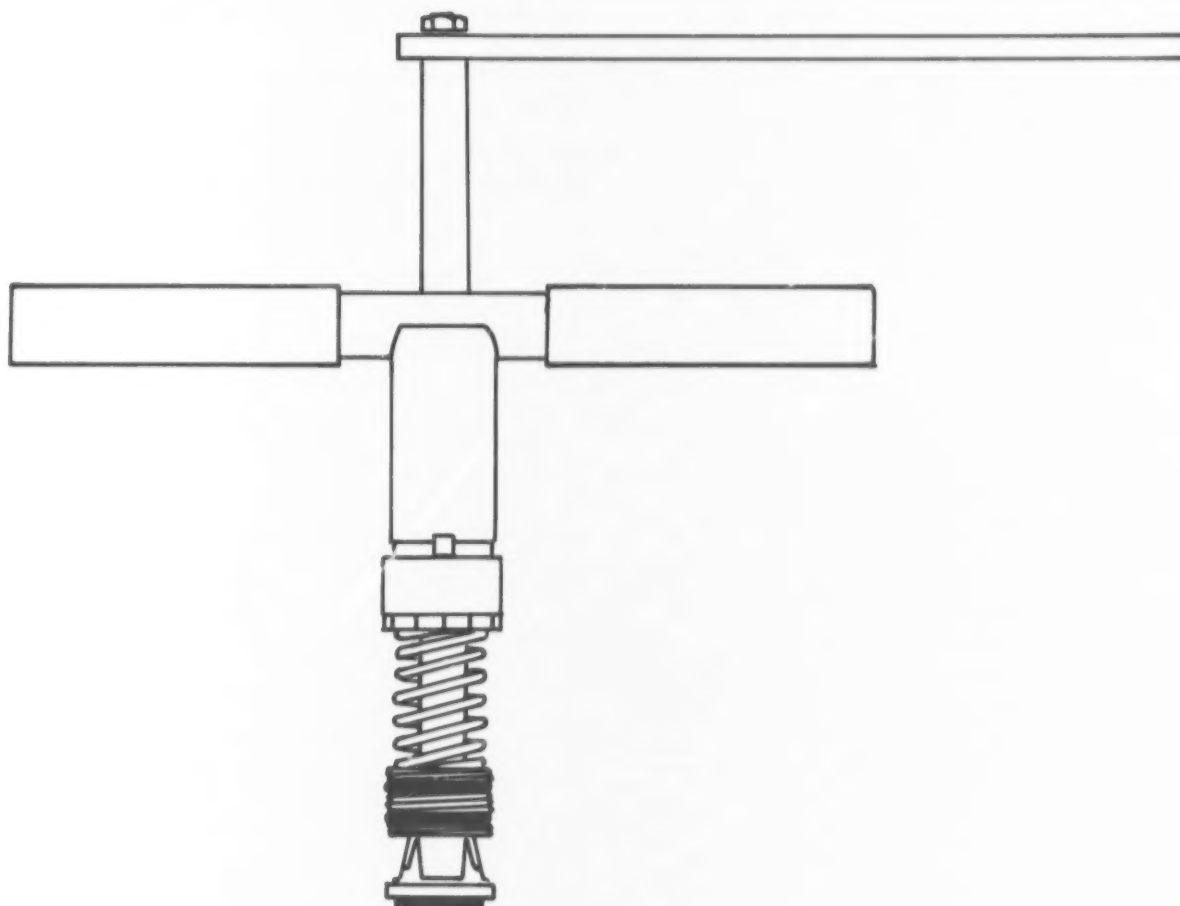


Figure 2-49.

Use:

The fuze well liner removal fixture is used to remove press type well liners from artillery projectiles.

Description:

The fixture is a hand tool consisting of a handle, a shaft, and a taper lock feature for gripping the fuze well liner.

Difference Between Models:
M2 version is a new design for improved performance. M1 version is no longer approved.

Tabulated Data:

APE No. 11400000M2

Unit of Issue Each

Installation Data:

Length 14 in.

Width 2 in.

Height 14 in.

Weight 3 lb

Utilities Required:

None.

Production Capacity:
2 to 3 liners per minute.

Shipping Data:

Length 16 in.

Width 16 in.

Height 3 in.

Cube 0.45 cu ft

Weight 5 lb

Associated Equipment:

None.

Kits:

None.

APE 1146--MACHINE, OBLITERATING



Figure 2-50.

Use:

The obliterating machine is used to deface the original embossed markings on standard contour artillery fuzes.

Description:

The machine consists of a fuze holding cup with a knurling wheel and handle attached. The machine is hand operated and mounted on a bench or work table.

Difference Between Models:
Original design.

Production Capacity:
Not applicable.

Tabulated Data:

APE No. 11460000
Unit of Issue Each
Installation Data:
Length 17-1/2 in.
Width 5-1/2 in.
Height 4 in.
Weight 8 lb
Utilities Required:
None.

Shipping Data:

Length 21 in.
Width 6 in.
Height 6 in.
Cube 0.44 cu ft
Weight 11 lb

Associated Equipment:
None.

Kits:
None.

APE 1148--FIXTURE, PRIMER REMOVAL AND INSERTION

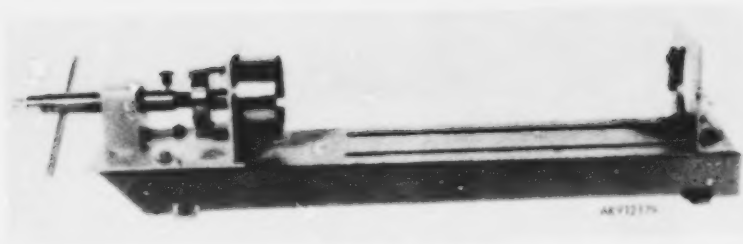


Figure 2-51.

Use:

The primer removal and insertion fixture is used to assemble or disassemble M32, M34 or M71 screw type primers from the fin assemblies of 60MM and 81MM mortar ammunition by hand operation.

Description:

The fixture consists of a metal base, a nose clamp assembly, a fin holder assembly, and a primer wrench assembly.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 11480000

Unit of issue Each

Installation Data:

Length 34 in.

Width 8 in.

Height 7 in.

Weight 50 lb

Utilities Required:

None.

Production Capacity:

120 primers per hour.

Shipping Data:

Length 36 in.

Width 10 in.

Height 9 in.

Cube 1.9 cu ft

Weight 89 lb

Associated Equipment:

None.

Kits:

None.

APE 1151--REMOVER, TEAR STRIP

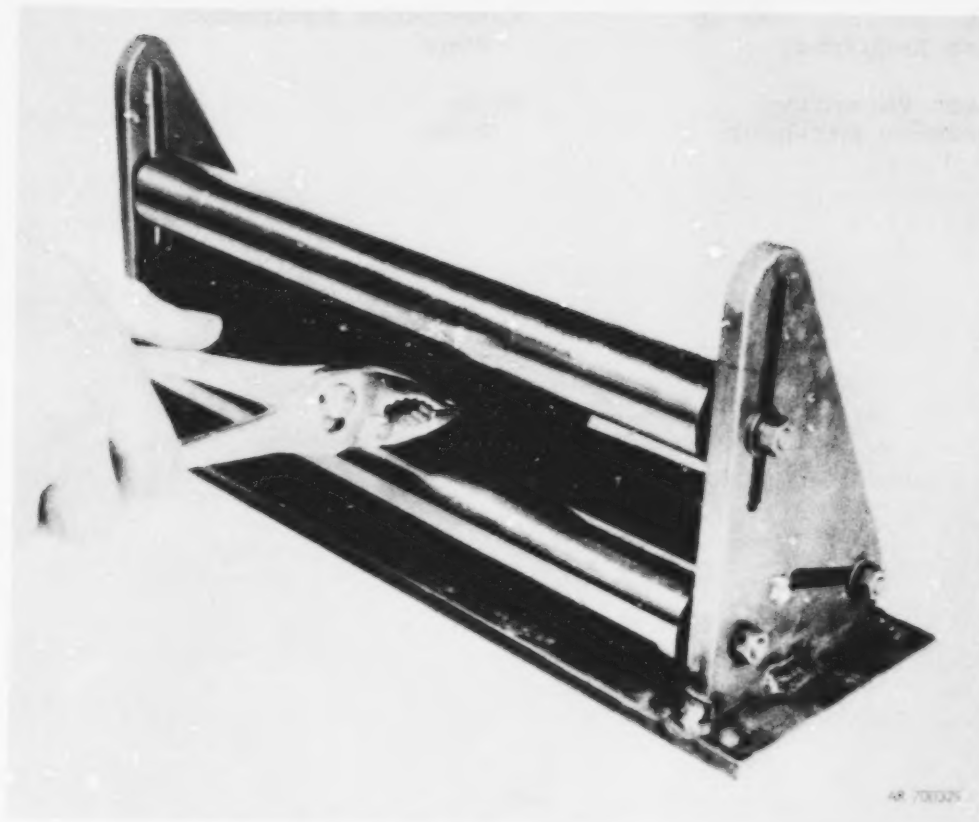


Figure 2-52.

Use:

The tear strip remover is used with a pair of pliers to remove the tear strip from hermetically sealed containers ranging in diameter from 1.37 inches to 4.06 inches and in length from 2.1 inches to 12 inches.

Description:

The remover consists of a steel frame with three rollers which can be adjusted to the size of the container being opened.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 11510000
 Unit of Issue Each
 Installation data:
 Length 14-3/4 in.
 Width 4-1/2 in.
 Height 6-5/8 in.
 Weight 20 lb
 Utilities Required:
 None.
 Production Capacity:
 Varies with condition of
 containers.

Shipping Data:

Length 16 in.
 Width 8 in.
 Height 6 in.
 Cube 0.5 cu ft
 Weight 24 lb

Associated Equipment:

None.

Kits:

None.

APE 1153M1--MACHINE, VERTICAL DISASSEMBLY

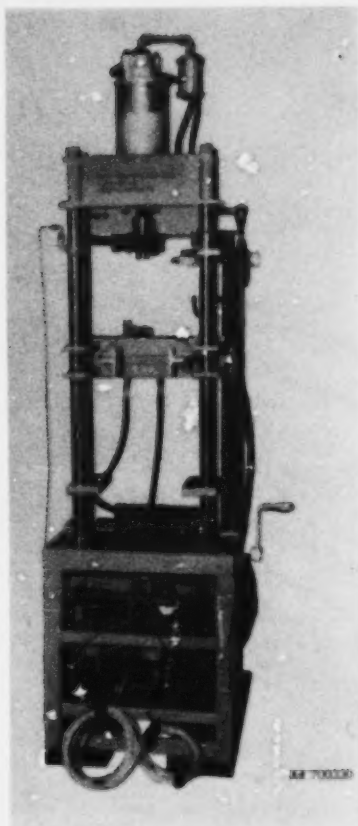


Figure 2-53.

Use:

The vertical disassembly machine is used to disassemble fuzes from cartridges; remove fin and boom from projectiles; remove primers from cartridge cases; and remove closing screws from fuzes.

Description:

The machine consists of a frame, a movable vise assembly, a four position clutch and an air drive motor.

Difference Between Models:

The M1 version, vise assembly is raised and lowered mechanically. It also has an improved timer, a different clutch, and a more powerful air motor.

Tabulated Data:

APE No. 11530000M1

Unit of Issue Each

Installation Data:

Length 37 in.

Width 26 in.

Height 84 in.

Weight 540 lb

Utilities Required:

Air at 90 psi and 83 cfm.

Production Capacity:

500 to 1000 items per shift depending on operation being performed.

Shipping Data:

Length 43 in.

Width 32-1/2 in.

Height 92 in.

Cube 74 cu ft

Weight 675 lb

Associated Equipment:

None.

Kits:

1153E001 KIT, Deprime 60MM Mortar: M49A2, M83, and M302; 81MM Mortar: M43A1, M56, M57, M57A1, M301A1, and M301A2

1153E002 KIT, Deprime 90MM: M371 HEAT

1153E003 KIT, Remove Head from Adapter, M519 Fuze

1153E005 KIT, Remove PD Fuze from 90MM and 105MM Projectiles

1153E006 KIT, Remove BD Fuze M9A1, M66A1, M66A2, M68 and/or tracer M5 series from 75MM M349; 76MM M319; 90MM M82, M142E3, M332A1; 105MM M326; 106MM M346A1

1153E014 KIT, Remove Fins: M2 and M5 from 60MM Mortar Cartridges and Fins M3 and M6 from 81MM Mortar Cartridges

1153E016 KIT, Remove Booster from M52 Fuze

1153E019 KIT, Remove Fuze from Projectile, 57MM, M307A1

1153E020 KIT, Remove M524 Fuze from Cartridge, 81MM: M362

1153E024 KIT, Defuze 60MM, 81MM and 4.2-inch Mortar Cartridges

1153E025 KIT, Remove Bottom closing Screw from Fuze PD: M78

1153E027 KIT, Remove Booster Assembly and/or Cup from Standard Contour Fuzes

1153E028 KIT, M19 Rifle Grenade FIN Assy Removal

1153E029 KIT, Remove Ignition Ctg., Housing from 81MM Mortar M362, M362A1, M370, M374, M374A1, M374A2, M375A1, M375A2

1153E031 KIT, Remove Ignition Ctg., Housing from 81MM Mortar M301A3

1153E032 KIT, Deprime 81MM Mortar M301A3, M362, M362A1, M370, M374, M374A2, M375, M375A1, M375A2

APE 1157--TESTER, PRIMER SENSITIVITY

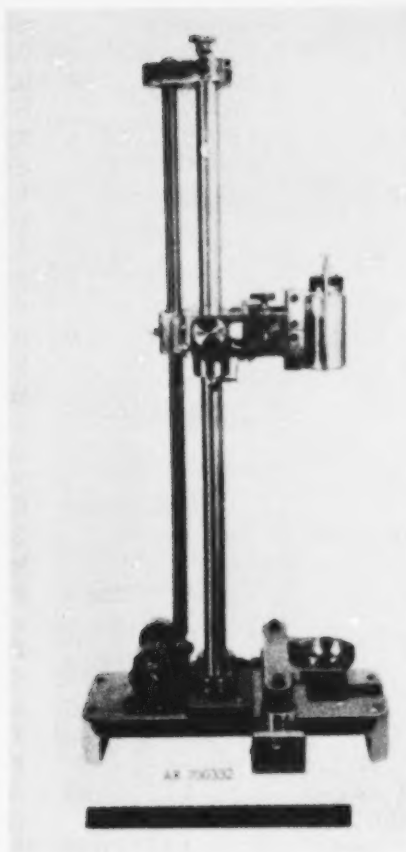


Figure 2-54.

Use:

The primer sensitivity tester is used to function test No. 1-1/2 primers, M26 primers, and C12 hand grenade fuze detonators.

Description:

The tester consists of a base, a tower assembly, a magnet assembly, a primer holding assembly, two balls, and shaped impact weights.

Difference Between Models:
Original design.

Production Capacity:
Not applicable.

Tabulated Data:

APE No. 11570000

Unit of Issue Each

Installation Data:

Length 8 in.

Width 12 in.

Height 36 in.

Weight 75 lb

Utilities Required:

24 vdc.

Shipping Data:

Length 10 in.

Width 16 in.

Height 42 in.

Cube 3.9 cu ft

Weight 90 lb

Associated Equipment:

None.

Kits:

None.

APE 1159--DEVICE, VERTICAL LID REMOVAL

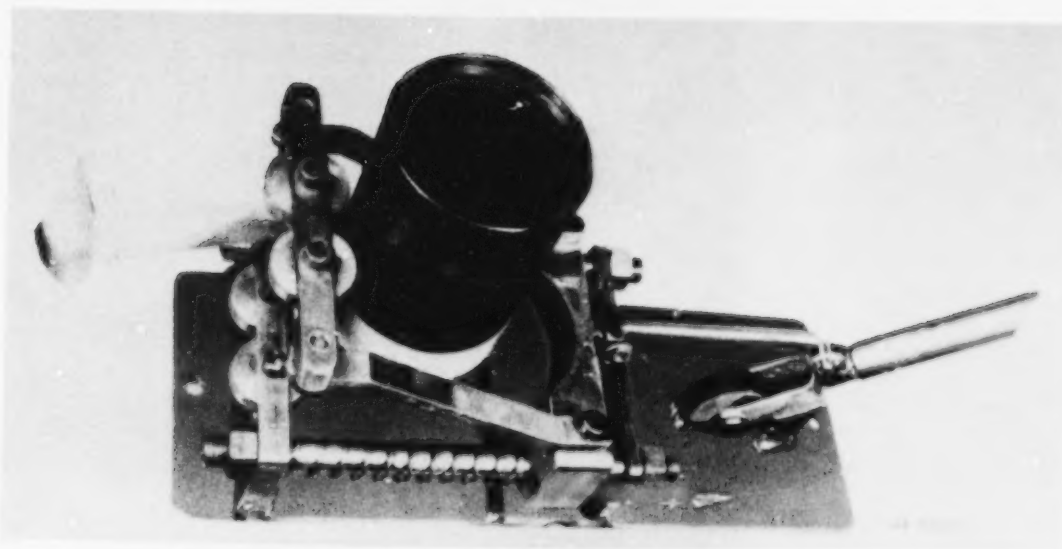


Figure 2-55.

Use:

The vertical lid removal device is used to remove the tape and lid from small fiber containers such as those used for hand grenades, fuzes and 60MM mortar fuzes.

Description:

The device consists of a base, a container clamping assembly, a lid removal assembly, and an operating lever. The device is hand operated.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 11590000
Unit of Issue Each
Installation Data:
Length 14 in.
Width 5 in.
Height 11-3/8 in.
Weight 15 lb
Utilities Required:
None.

Production Capacity:
Not applicable.

Shipping Data:

Length 16 in.
Width 7 in.
Height 14 in.
Cube 0.9 cu ft
Weight 20 lb

Associated Equipment:
None.

Kits:
None.

APE 1162M1--MACHINE, CARTRIDGE CASE TRIMMING

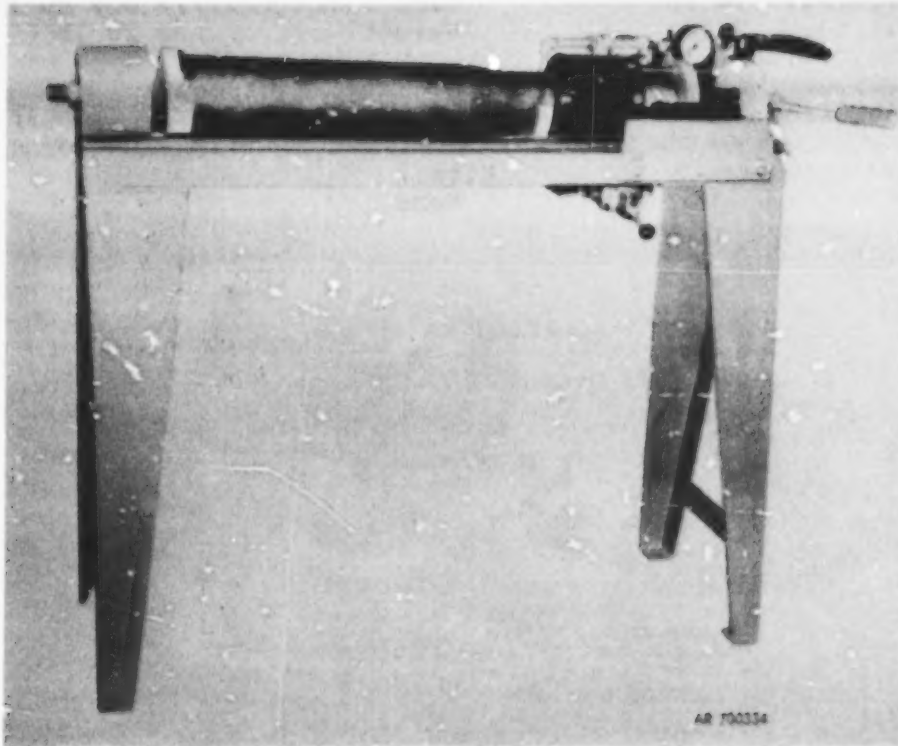


Figure 2-56.

Use:

The cartridge case trimming machine is used to trim 90MM and 105MM cartridge cases which have been resized. This assures proper cartridge case length and concentricity of the neck end of the cartridge cases.

Description:

The machine consists of an aluminum frame, a cartridge case base holder, and a cutting head powered by an air motor. A GO-NO-GO gage is provided to check the cartridge cases after trimming.

Difference Between Models:
The M1 machines have an aluminum angle frame and an improved pneumatic system.

Tabulated Data:

APE No. 11620000M1
Unit of Issue Each

Installation Data:

Length 46-5/8 in.
Width 17-1/2 in.
Height 42 in.
Weight 96 lb

Utilities Required:

Air at 90 psi and 28 cfm.

Production Capacity:

Not established.

Shipping Data:

Length 48 in.
Width 24 in.
Height 48 in.
Cube 32 cu ft
Weight 140 lb

Associated Equipment:

None.

Kits:

1162E001 KIT, Gage, Go-No-Go,
90MM Brass Cartridge
Case
1162E002 KIT, Trim 90MM Brass
Cartridge Case
1162E003 KIT, Trim 105MM:
M148 Cartridge Case
1162E004 KIT, Gage, Go-No-Go,
105MM Brass Cartridge
Case

APE 1164--MACHINE, CARTRIDGE CASE RESIZING

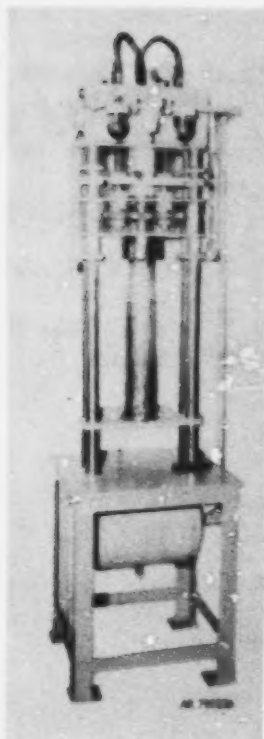


Figure 2-57.

Use:

The cartridge case resizing machine is used to remove the crimp indentation and to resize the necks of brass and steel cartridge cases.

Description:

The resizing machine consists of a table, an air tank mounted under the table, four bolster rods, an air motor, drive gears, and the control valves.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 11640000

Unit of Issue Each

Installation Data:

Length 42 in.

Width 24 in.

Height 92 in.

Weight 540 lb

Utilities Required:

Air at 100 psi and 120 cfm.

Production Capacity:

2100 90MM brass cartridge
cases per shift.

Shipping Data:

Length 59 in.

Width 44 in.

Height 96 in.

Cube 145 cu ft

Weight 1222 lb

Associated Equipment:

None.

Kits:

1164E001 KIT, Resize 75MM:
M31A1 Cartridge Cases

1164E002 KIT, Resize 76MM: M88
Cartridge Cases

1164E003 KIT, Resize 57MM: M30
Cartridge Cases

1164E004 KIT, Resize 57MM: M23
Cartridge Cases

1164E005 KIT, Resize 75MM: M35
(T6E3) Cartridge Cases

1164E006 KIT, Resize 75MM: M18
Cartridge Cases

1164E007 KIT, Resize 75MM:
M9A1 Cartridge Cases

1164E008 KIT, Resize 76MM: M26
Cartridge Cases

1164E009 KIT, Resize 76MM:
M101 Cartridge Cases

1164E010 KIT, Resize 90MM:
M19, M108, T24 Car-
tridge Cases

1164E011 KIT, Resize 105MM:
M32 Cartridge Case

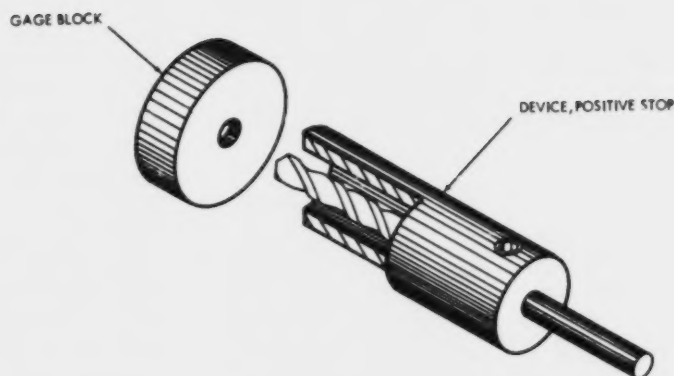
1164E012 KIT, Resize 105MM:
T43 Cartridge Case

1164E013 KIT, Resize 105MM:
M90 and M95 Cartridge
Cases and 106MM: M93
and M94 Cartridge
Cases

1164E014 KIT, Resize 106MM Car-
tridge Cases with Dou-
ble Crimp

1164E015 KIT, Resize 90MM:
M112 Cartridge Cases

APE 1171--DEVICE, POSITIVE STOP



AR912142

Figure 2-58.

Use:

The positive stop device is used to prevent overdrilling of stake marks and setscrews.

Description:

The device consists of a metal sleeve with a setscrew which fits over a drill. The setscrew locks the drill in the sleeve at the desired position to control the drilling depth.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 11710000

Unit of Issue Each

Installation Data:

Length 3 in.

Width 1-1/2 in.

Height 1-1/2 in.

Weight 3/4 lb

Utilities Required:
None.
Production Capacity:
Not applicable.

Height 2 in.
Cube 16 cu in.
Weight 1 lb

Shipping Data:
Length 4 in.
Width 2 in.

Associated Equipment:
None.
Kits:
None.

APE 1174--GAGE, PLUG AND RING

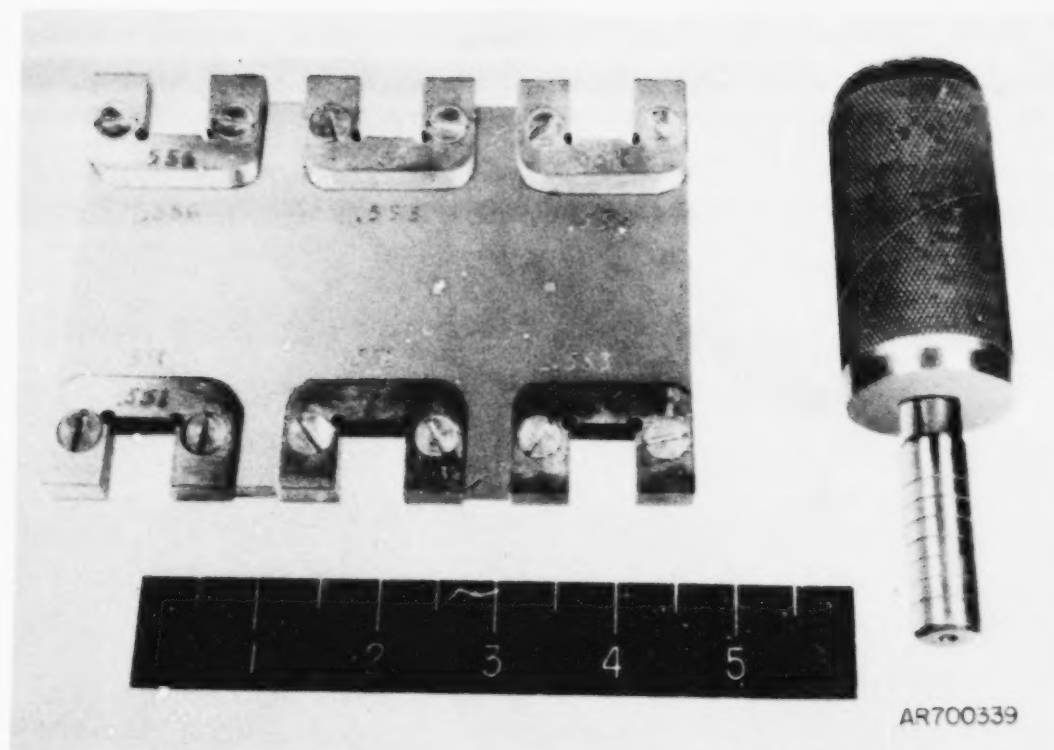


Figure 2-59.

Use:

The plug and ring gage is used to check the primer cavity of 90MM cartridges so that primers can be matched with cartridge cases.

Description:

The plug gage is a tapered metal rod which is marked each 0.001-inch graduation. The ring gage is made of flat stock and measures 0.551 inches through 0.556 inches.

Difference Between Models:
Original design.

Production Capacity:
Not applicable.

Tabulated Data:

APE No. 11740000
Unit of Issue Each
Installation Data:
Length 5-1/2 in.
Width 3-1/2 in.
Height 1/2 in.
Weight 3 lb
Utilities Required:
None.

Shipping Data:

Length 6 in.
Width 4 in.
Height 1 in.
Cube 0.01 cu ft
Weight 4 lb

Associated Equipment:
None.

Kits:
None.

TM 43-0001-47

APE 1176--CART, AMMUNITION, PROJECTILE, 37MM THROUGH 105MM



Figure 2-60.

Use:

The ammunition cart is used to transport six projectiles during maintenance operations. The projectiles can be up to 18 inches long and 4.5 inches in diameter. Maximum load on cart cannot exceed 400 pounds.

Description:

The cart consists of a metal frame with four wheels. It is equipped with brakes to hold the cart in place when not in use. The rack on top of the frame holds six projectiles.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 11760000

Unit of Issue Each

Installation Data:

Length 35-1/4 in.

Width 22 in.

Height 32-1/4 in.

Weight 75 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 40 in.

Width 24 in.

Height 36 in.

Cube 20 cu ft

Weight 100 lb

Associated Equipment:

None.

Kits:

None.

APE 1177--CART, AMMUNITION, COMPLETE ROUND



Figure 2-61.

Use:

The complete round ammunition cart is used to transport four complete rounds of ammunition during maintenance operations. The cart accommodates 37MM through 105MM cartridges up to 40 inches long.

Description:

The cart consists of a metal frame with four wheels. It is equipped with brakes to hold the cart in place when not in use. The rack on top of the frame holds four cartridges.

Difference Between Models:
Original design.

Production Capacity:
Not applicable.

Tabulated Data:

APE No. 11770000
Unit of Issue Each
Installation Data:
Length 45-1/4 in.
Width 24-1/2 in.
Height 37-1/2 in.
Weight 90 lb

Utilities Required:
None.

Shipping Data:

Length 48 in.
Width 28 in.
Height 48 in.
Cube 37 cu ft
Weight 125 lb

Associated Equipment:
None.

Kits:
None.

APE 1178--CART, AMMUNITION, SMALL ITEMS



Figure 2-62.

Use:

The small items ammunition cart is used to transport fuzes and other small items during maintenance operations.

Description:

The cart consists of a metal frame with four wheels. It is equipped with brakes to hold the cart in place when not in use. The cart holds five small item racks.

Difference Between Models:
Original design.

Production Capacity:
Not applicable.

Tabulated Data:

APE No. 11780000
Unit of Issue Each
Installation Data:
Length 37 in.
Width 22 in.
Height 33 in.
Weight 80 lb

Utilities Required:
None.

Shipping Data:

Length 42 in.
Width 24 in.
Height 40 in.
Cube 23.4 cu ft
Weight 110 lb

Associated Equipment:
None.

Kits:
None.

APE 1189--EQUIPMENT, CONTINUITY TEST

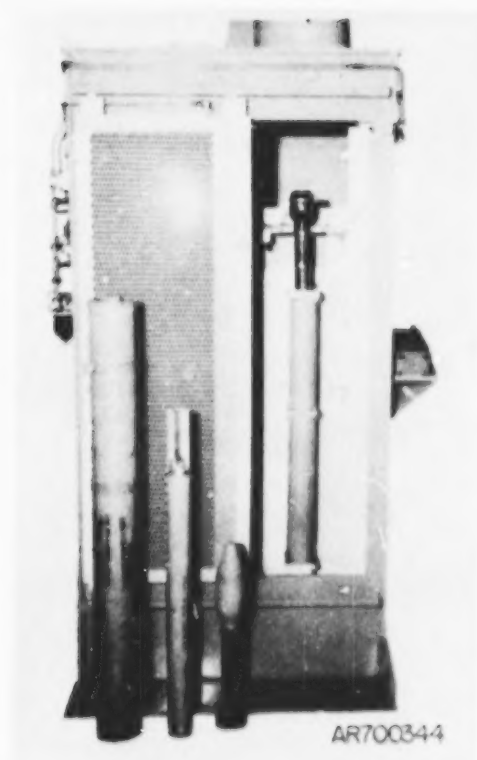


Figure 2-63.

Use:

The continuity test equipment is used to protect operating personnel while conducting the circuit continuity testing of 2.75-, 3.5-, and 5-inch rocket motors.

Description:

The equipment consists of an operational shield, holding fixtures for 2.75-, 3.5-, and 5-inch rockets, and electrical connections for a continuity tester.

NOTE: User must supply test instrument

Difference Between Models:
Original design.

Tabulated Data:

APE No. 11890000
Unit of Issue Each
Installation Data:
Length 40 in.
Width 36 in.
Height 81 in.
Weight 2358 lb
Utilities Required:
Air at 60 psi and 50 cfm.
Production Capacity:
120 per hour with warhead; 240
per hour without warhead.

Shipping Data:

Length 56 in.
Width 46 in.
Height 90 in.
Cube 134.1 cu ft
Weight 2693 lbs

Associated Equipment:
None

Kits:

1189E001 KIT, Continuity Test
2.75-Inch Rocket Mo-
tors w/, press type
closures.
1189E002 KIT, Continuity Test
3.5-Inch Rocket Motors
1189E003 KIT, Continuity Test
5-Inch Rocket Motors
1189E004 KIT, Continuity Test
2.75-Inch Rockets with
Solid Bulkhead Clo-
sures or with M151 or
XM229 Warheads and
2.75-Inch Rocket Mo-
tor, w/Screw Type
Closing Plug, MK4,
Mods 8 and 9; MK40,
Mods 1 and 2
1189E011 KIT, Continuity Test
5-Inch M3 JATO Rocket
Motors
1189E012 KIT, Accessory, Elim-
inate Removing Shunting
Clip From 3.5-Inch
Rocket

1089E013 KIT, Accessory for
Continuity Testing M37
& M37A1 Honest John
Spin Rockets
1089E014 KIT, Accessory for
Continuity Testing
M7A2B1 Spin Rockets
1089E015 KIT, Accessory for
Continuity Testing
2.75 inch Rocket Motor
MK40 with Warhead M151,
M156, M229, M247,
WTU/1B & WTU/4A/A
(Remote Operation only)
without manually re-
moval of shorting clip.
1089E016 KIT, Accessory for
Continuity Testing
2.75 Inch Rocket Motor
MK40 only without man-
ually removing shorting
clip. Machine Tests
for proper shorting
lifts clip and tests
continuity, replaces
shorting clip, and
ensures proper shorting
by remote operation.
1089E017 KIT, Accessory for
Continuity Testing of
MK66, 2.75 inch Rocket
Motor

APE 1195--REMOVER, TAPE AND LID, FIBER CONTAINER

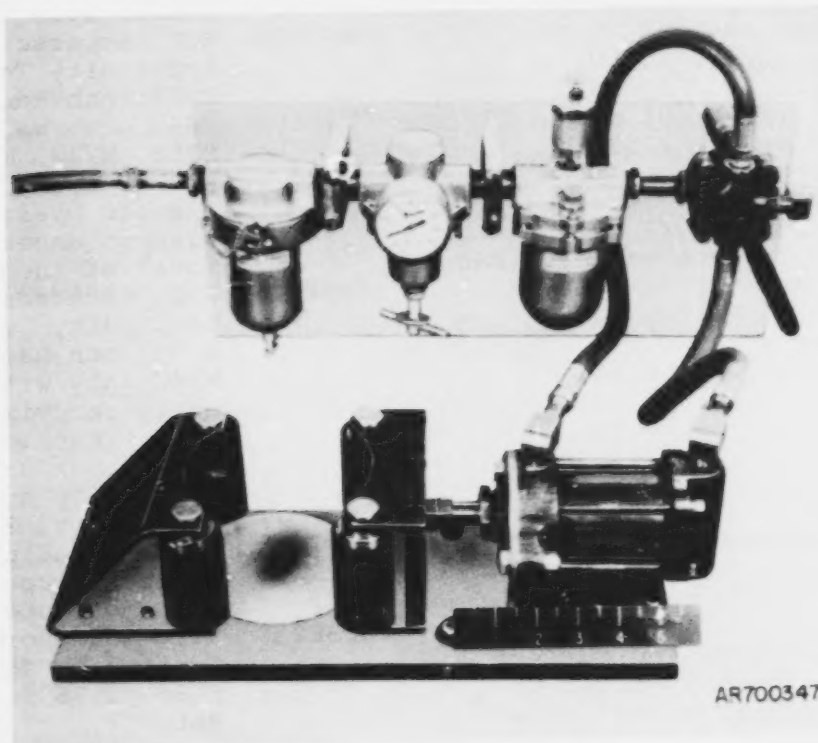


Figure 2-64.

Use:

The fiber container lid and tape remover is used when opening fiber containers containing mortars, cartridges, hand grenades, and fuzes.

Description:

The remover consists of a base, an air control assembly, and a clamping assembly. The clamping assembly consists of an air cylinder and a stop. The air cylinder and stop are equipped with rollers which allow the container to turn when removing the sealing tape.

Difference Between Models:
Original design.

Production Capacity:
None.

Tabulated Data:

APE No. 11950000

Unit of Issue Each

Installation Data:

Length 20 in.

Width 7 in.

Height 7 in.

Weight 20 lb

Utilities Required:

Air at 90 psi.

Shipping Data:

Length 24 in.

Width 8 in.

Height 8 in.

Cube 0.9 cu ft

Weight 25 lb

Associated Equipment:

None.

Kits:

None.

All Data on Pages 2-134 and 2-135, Including Figure 2-65 Deleted.

APE 1200--MACHINE, AMMUNITION CLEANING

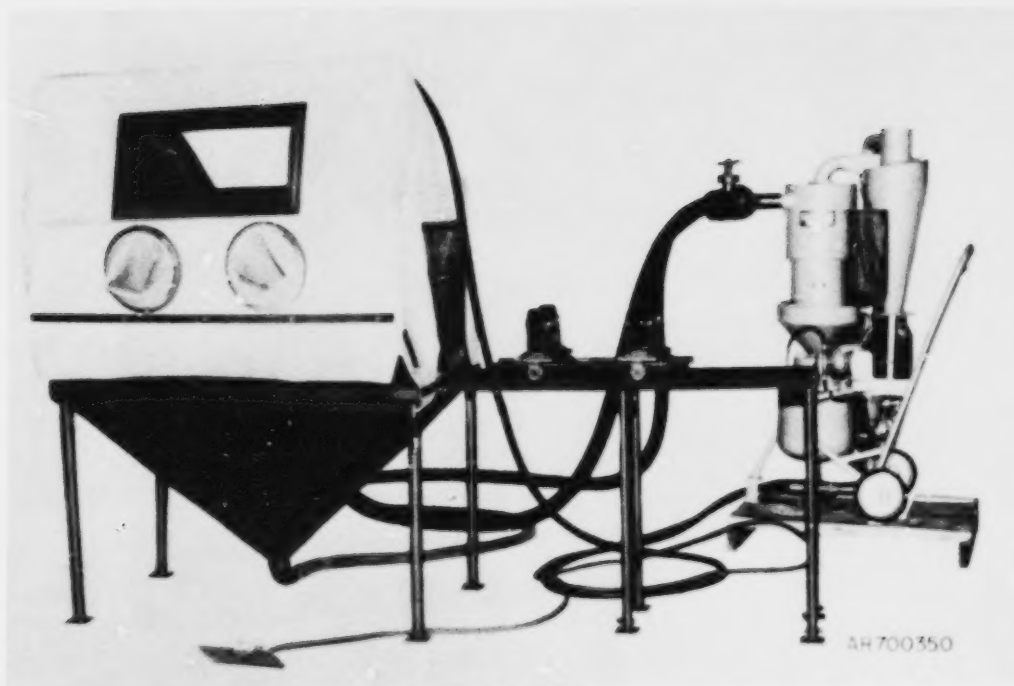


Figure 2-66.

Use:

The ammunition cleaning machine is used to provide a safe and effective method of removing rust and corrosion from artillery projectiles, ammunition components, and metal packing material.

Description:

The machine consists of two basic components: a light-weight portable cleaning cabinet and portable abrasive blast unit. The cabinet is equipped with rollers and a track to permit items to be pushed inside the cabinet and rotated during cleaning operations.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12000000

Unit of Issue Each

Installation Data:

BLAST UNIT

Length 31 in.

Width 22 in.

Height 59 in.

Weight 1075 lb

CABINET

Length 102 in.

Width 28 in.

Height 78 in.

Weight 1150 lbs

Utilities Required:

Air at 90 psi and 95 cfm.

Production Capacity:

Depends on items being
processed.

Shipping Data:

BLAST UNIT

Length 36 in.

Width 36 in.

Height 72 in.

Cube 54 cu ft

Weight 1400 lb

CABINET

Length 114 in.

Width 48 in.

Height 42 in.

Cube 133 cu ft

Weight 1450 lbs

Associated Equipment:

None.

Kits:

1200E001 KIT, Clean 60MM
Mortar

APE 1201--DEVICE, SUSPENSION LUG TESTING

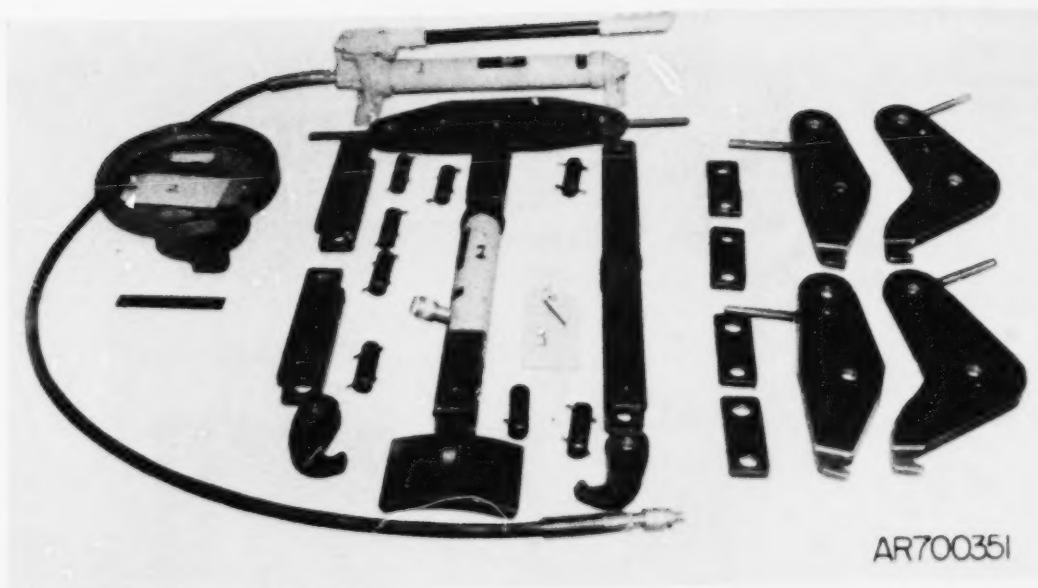


Figure 2-67.

Use:

The suspension lug testing device is used to test the strength of the suspension lugs on 500 pound and 750 pound general purpose bombs.

Description:

The device consists of a frame with bomb lug hooks assembled, a portable hydraulic pump, attaching hardware, and a dynamometer.

Difference Between Models:
Original design.

Production Capacity:
Not applicable.

Tabulated Data:

APE No. 12010000
Unit of Issue Each
Installation Data:
Length 24-3/8 in.
Width 22-1/2 in.
Height 6 in.
Weight 100 lb

Utilities Required:
None.

Shipping Data:

Length 30 in.
Width 24 in.
Height 12 in.
Cube 5 cu ft
Weight 130 lb

Associated Equipment:
None.

Kits:
None.

APE 1202M1--DEFUZING MACHINE, HAND GRENADE



Figure 2-68.

Use:

The hand grenade defuzing machine is used to remove fuzes from hand grenades in a shielded operation.

Description:

The machine consists of a six section turntable mounted in an operational shield. An air cylinder rotates the turntable 60 degrees at a time. Holding cups are mounted in each section of the turntable and are used to secure the grenade being disassembled. Barricade does not meet MIL-STD-398 requirements for M15 & M34 WP grenades and must be used in a remote operation when E005 & E007 kits are used to defuze these rounds.

2-140

Difference Between Models:

M1 version has an improved operational shield.

Tabulated Data:

APE No. 12020000M1

Unit of Issue Each

Installation Data:

Length 37-1/4 in.

Width 35 in.

Height 75-5/8 in.

Weight 1750 lbs

Utilities Required:

Air at 80 psi and 27 cfm.

Production Capacity:

140 to 180 grenades per hour - remote operation.

250 to 300 grenades per hour - attended operation.

Shipping Data:

Length 46 in.
 Width 46 in.
 Height 85 in.
 Cube 104 cu ft
 Weight 1900 lbs

Associated Equipment:

APE 1213M1 pitch in barricade
 (for delay fuze frag grenades
 only).

Kits:

1202E003 KIT, Remove fuze from
 M26, M26A1 & M61 hand
 grenade
 1202E004 KIT, Remove fuzes from
 MK2 hand grenades.
 1202E005 KIT, Remove fuzes from
 M34 WP smoke grenades.
 1220E006 KIT, Remove fuzes from
 M6, M7, M8, M14 and M18
 chemical grenades.
 1202E007 KIT, Remove fuzes from
 M15 WP smoke grenades.
 1202E009 KIT, Remove fuzes from
 MK3A2 offensive hand
 grenades.
 1202E010 KIT, Remove fuzes from
 M33, M67 delay frag
 grenades and M69 practice
 grenades.

APE 1204--VISE, PNEUMATIC

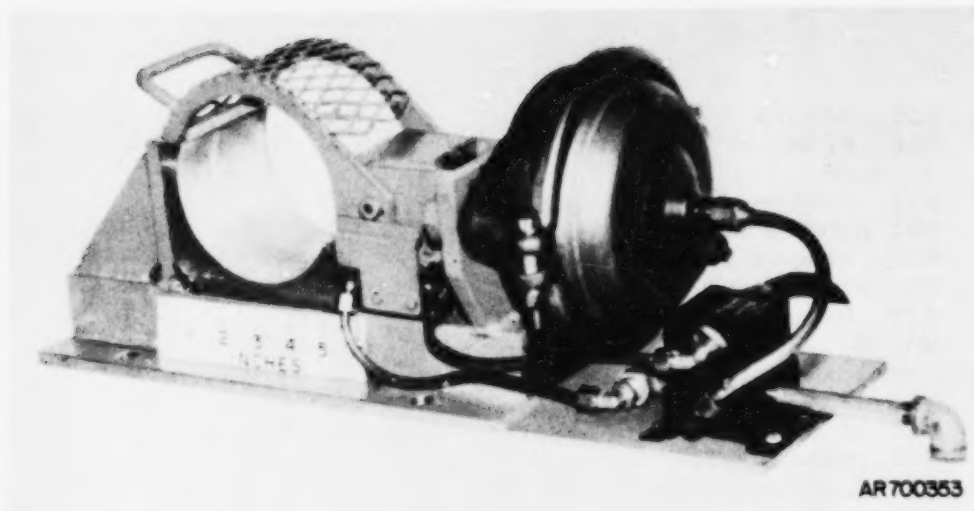


Figure 2-69.

Use:

The pneumatic vise is used to hold ammunition items for repair and/or renovation. Items range in size from 37MM to 120MM including 2.75-inch and 3.5-inch rockets.

Description:

The vise consists of a base, an air brake chamber, a valve assembly controlled by a safety shield, and a filter-regulator-lubricator.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12040000
Unit of Issue Each

Installation Data:

Length 20 in.
Width 10 in.
Height 9 in.
Weight 48 lb

Utilities Required:

Air at 80 psi and 81 cfm.

Production Capacity:

Depends on operation being performed.

Shipping Data:

Length 30 in.
Width 19 in.
Height 12 in.
Cube 4 cu ft
Weight 135 lb

Associated Equipment:

None.

Kits:

1204E001 KIT, Jaw, 120MM
1204E002 KIT, Jaw, 37MM
1204E003 KIT, Jaw, 40MM
1204E004 KIT, Jaw, 57MM

1204E005 KIT, Jaw, 75MM
1204E006 KIT, Jaw, 76MM
1204E007 KIT, Jaw, 90MM
1204E009 KIT, Jaw, 81MM: M43
Series Projectile
1204E010 KIT, Jaw, 3.5 Inch
Rocket
1204E011 KIT, Jaw, 2.75 Inch
Rocket Warhead
1204E012 KIT, Jaw, 60MM:
M49A2 and M50A2
1204E013 KIT, Jaw, 2.75 Inch
Rocket Warhead: MK5
Mod 0
1204E014 KIT, Jaw, 81MM: M57
M362, M370, M374, and
M375
1204E015 KIT, Hold, 2.75 Inch
Rocket Motor
1204E016 KIT, Jaw, 4.2 Inch,
105MM or 106MM Pro-
jectile

APE 1205M1--BOOTH, PAINT SPRAY

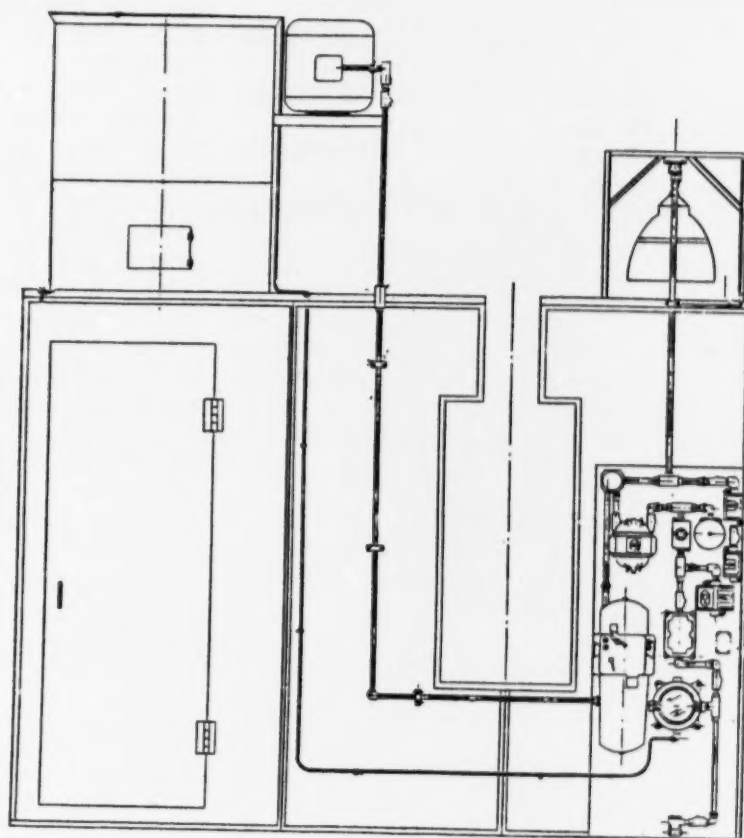


Figure 2-69.1.

Use:

The paint spray booth is used in production line painting of packing materials and ammunition items.

complete with exhaust fan system, automatic shut down control, monorail and roller conveyor openings.

Description:

The booth is a floor style, self supported, dry filter type with a 15 foot face opening. It is

Difference Between Models:

A Tech Data Package was developed to replace original purchase description, to insure conformity of design.

Tabulated Data:

APE No. 12050000M1

Unit of Issue Each

Installation Data:

Length 12 ft

Width 15 ft 6 in.

Height 9 ft plus
maximum 4 ft 6 in. exhaust
stack

Weight Not available

Utilities Required:

220 vac, 3 phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Crate 1

Length 113 in.

Width 61 in.

Height 74 in.

Cube 575 cu ft (Total)

Weight 5824 lbs (Total)

Crate 2

Length 95 in.

Width 43 in.

Height 20 in.

Crate 3

Length 93 in.

Width 59 in.

Height 62 in.

Crate 4

Length 203 in.

Width 22 in.

Height 14 in.

Associated Equipment:

APE 1022M1 Conveyor, Powered
Belt

APE 1044M1 System, Monorail
Conveyor

Kits:

None

APE 1206--MACHINE, THREE SPINDLE DISASSEMBLY

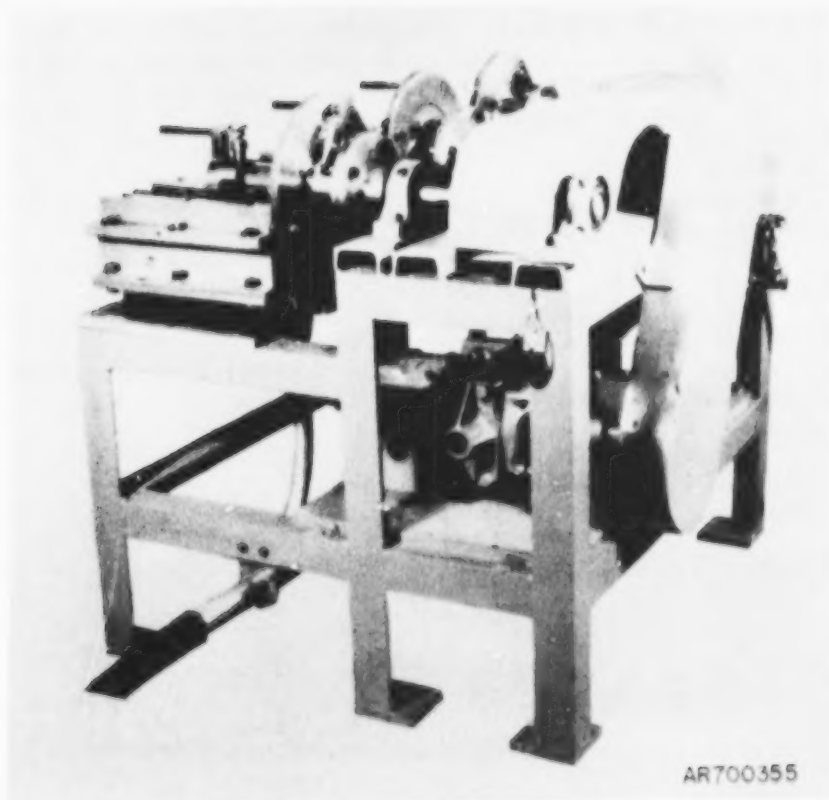


Figure 2-70.

Use:

The three spindle disassembly machine is used for screw type disassembly operations such as removing boosters from fuzes.

Description:

The machine has three stations to disassemble fuzes. An air motor powers a drive chain which rotates the disassembly heads. The disassembly system is mounted on a steel frame.

Difference Between Models:
Original design.

Production Capacity:
2500 boosters per 8 hour
shift.

Tabulated Data:

APE No. 12060000
Unit of Issue Each

Installation Data:

Length 36 in.
Width 43 in.
Height 36 in.
Weight 1200 lbs

Utilities Required:

Air at 90 psi and 80 cfm.

Shipping Data:

Length 42 in.
Width 50 in.
Height 42 in.
Cube 50.5 cu ft
Weight 1500 lb

Associated Equipment:

None.

Kits:

None.

All Data on Pages 2-148 and 2-149, Including Figure 2-71 Deleted.

APE 1208--MACHINE, VERTICAL DEBANDING

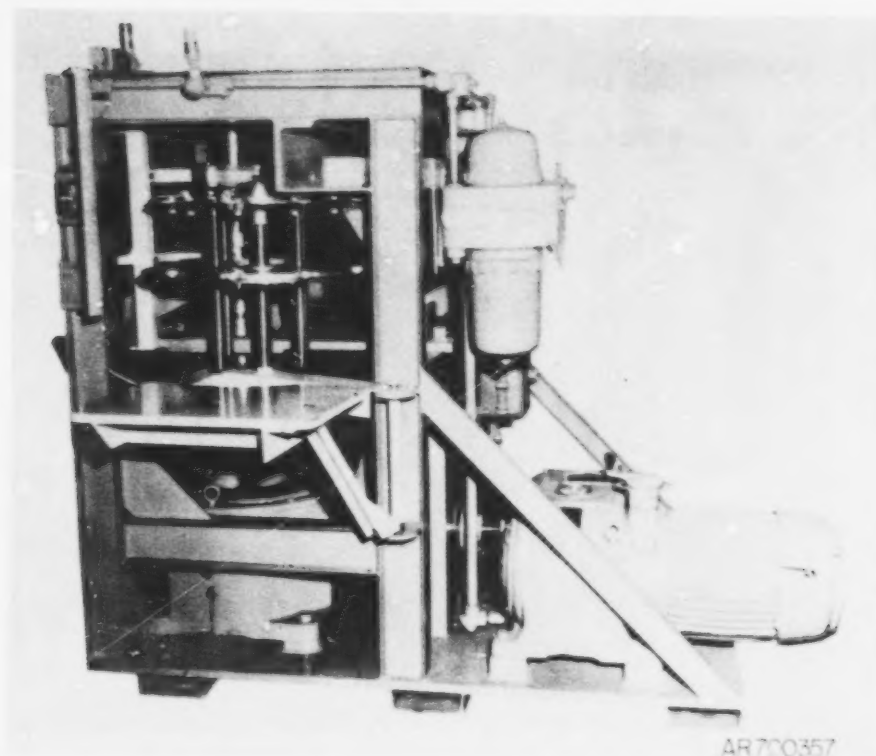


Figure 2-72.

Use:

The vertical debanding machine is used to remove rotating bands from 37MM through 106MM projectiles.

Description:

The machine consists of a welded steel frame, a revolving feed table, a knurling assembly, and a 10 horsepower variable speed motor.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12080000
Unit of Issue Each

Installation Data:

Length 80 in.
Width 48 in.
Height 64 in.
Weight 7050 lb

Utilities Required:
 220/440 vac, 60 Hz, 3 phase.
 Production Capacity:
 Depends on size and condition
 of projectile.

Shipping Data:
 Length 8 ft
 Width 5 ft
 Height 6-1/2 ft
 Cube 260 cu ft
 Weight 7500 lb

Associated Equipment:
 None.

Kits:
 1208E001 KIT, Deband 90MM:
 M71 Projectiles
 1208E002 KIT, Deband 57MM Pro-
 jectiles
 1208E003 KIT, Deband 75MM and
 76MM Projectiles
 1208E004 KIT, Deband 37MM and
 40MM Projectiles
 1208E005 KIT, Deband 105MM and
 106MM Projectiles

APE 1209M1--MACHINE, TAPING

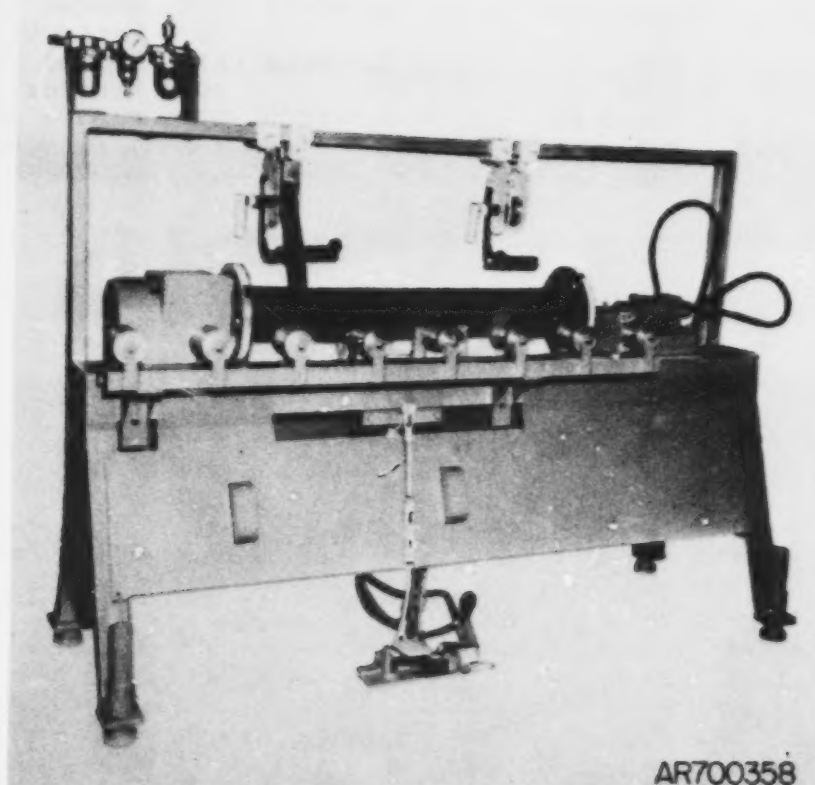


Figure 2-73.

Use:

The taping machine is used to apply sealing tape to fiber or metal containers ranging in length from 12 inches to 44 inches and up to 8-1/2 inches in diameter.

Description:

The machine consists of a steel channel frame, a 360 degree actuator to revolve the container being taped, a clamp cylinder to

seat the container lid against the container body, two tape holders with tape cutters, and a roller conveyor to feed the containers from the main conveyor line to the machine.

Difference Between Models:

Not available.

Tabulated Data:

APE No. 12090000M1

Unit of Issue Each

Installation Data:

Length 80 in.

Width 28 in.

Height 72 in.

Weight 300 lb

Utilities Required:

Air at 80 psi and 6 cfm.

Production Capacity:

2520 double lid containers per
8 hour shift; 3360 single lid
containers per 8 hour shift.

Shipping Data:

Length 96 in.

Width 30 in.

Height 78 in.

Cube 130 cu ft

Weight 700 lbs

Associated Equipment:

None.

Kits:

1209E001 KIT, Apply Three
Wraps of Tape

1209E003 KIT, 2.75 Rocket
(For up to 68" length
containers)

APE 1210--MACHINE, DISASSEMBLY, 155MM M116, 4.5" WHD RKT

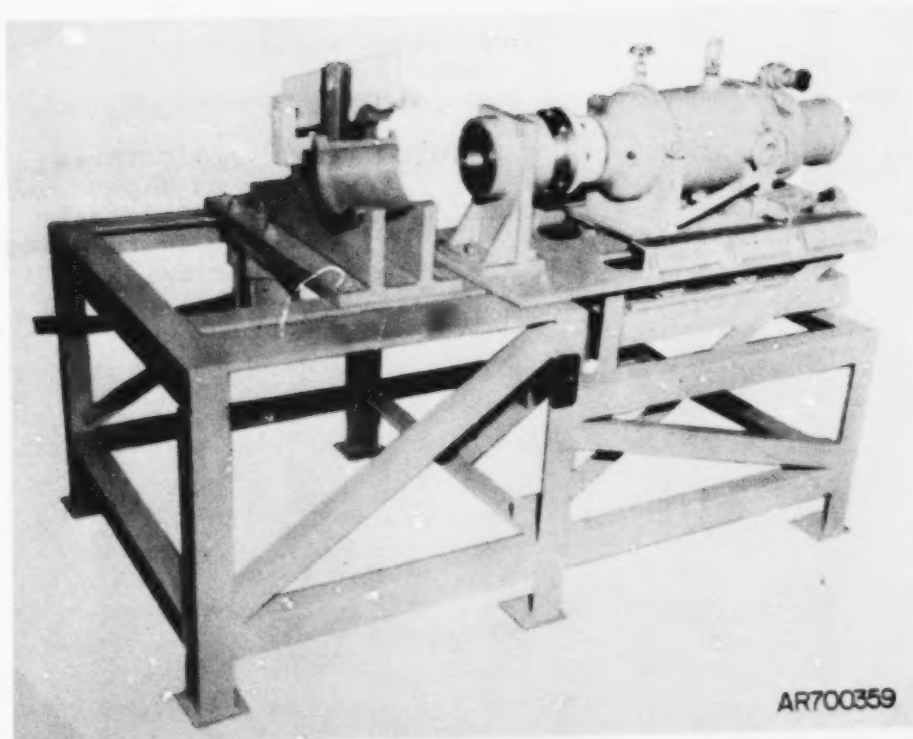


Figure 2-74.

Use:

The disassembly machine is used to remove the base plate from 155MM: M116 HC smoke projectiles and the warhead from 4.5" rocket. This machine is used if APE 1002M2 cannot perform the disassembly operation.

Description:

The machine consists of a frame, a pneumatic wrench, a thrust cylinder to position the pneumatic wrench, and a pneumatic vise clamp.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12100000

Unit of Issue Each

Installation Data:

Length 65 in

Width 40 in.

Height 43 in.

Weight 1000 lbs

Utilities Required:

Air at 100 psi.

Production Capacity:

55 projectiles per hour.

Shipping Data:

Length 72 in.

Width 44 in.

Height 48 in.

Cube 89 cu ft

Weight 1400 lbs

Associated Equipment:

None.

Kits:

1210E002 KIT, Remove Warhead
from 4.5-Inch Rocket

APE 1212M1--MACHINE, DEBANDING, 120MM THRU 280MM PROJECTILES

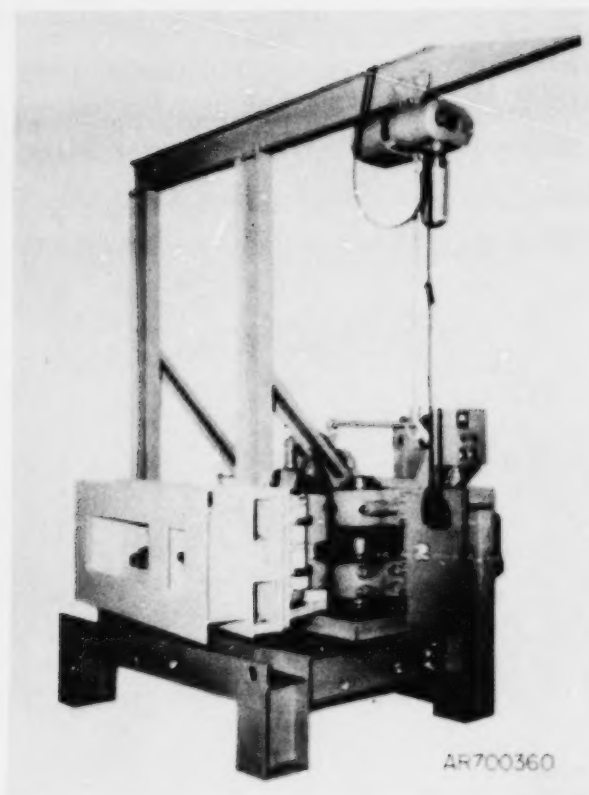


Figure 2-75.

Use:

The debanding machine is used to remove the rotating bands from 120MM through 280MM projectiles.

Description:

The machine frame is constructed of heavy steel channel and I beams welded together. A 25 horsepower

motor is mounted on the frame.

The motor is connected to a knurling wheel drive shaft by a sprocket drive shaft. A fulcrum arm assembly moves the projectile against the knurling wheel. An auxiliary hydraulic power source operates the cylinders.

Difference Between Models:

APE 1212 was the pilot model. APE 1212M1 has a stronger structure.

Tabulated Data:

APE No. 12120000M1

Unit of Issue Each

Installation Data:

MACHINE

Length 86 in.

Width 94 in.

Height 129 in.

Weight 11,000 lbs

POWER UNIT

Length 74 in.

Width 30 in.

Height 45 in.

Weight 500 lbs

Utilities Required:

208-220/440 vac, 60 Hz, 3 phase.

Production Capacity:

740 120MM/155MM projectiles per 8 hour shift; 300 240MM projectiles per 8 hour shift.

Shipping Data:

MACHINE

Length 96 in.

Width 102 in.

Height 138 in.

Cube 782 cu ft

Weight 15,000 lbs

POWER UNIT

Length 80 in.

Width 36 in.

Height 60 in.

Cube 100 cu ft

Weight 750 lbs

Associated Equipment:

None.

Kits:

1212E001 KIT, Deband 280MM Projectiles

1212E002 KIT, Deband 8-Inch and 240MM Projectiles except 8-Inch M106

1212E003 KIT, Deband 155MM Projectiles

1212E004 KIT, Deband 175MM Projectiles

1212E005 KIT, Deband 120MM Projectile with single rotating band

APE 1213M1--GRENADE PITCH-IN BARRICADE

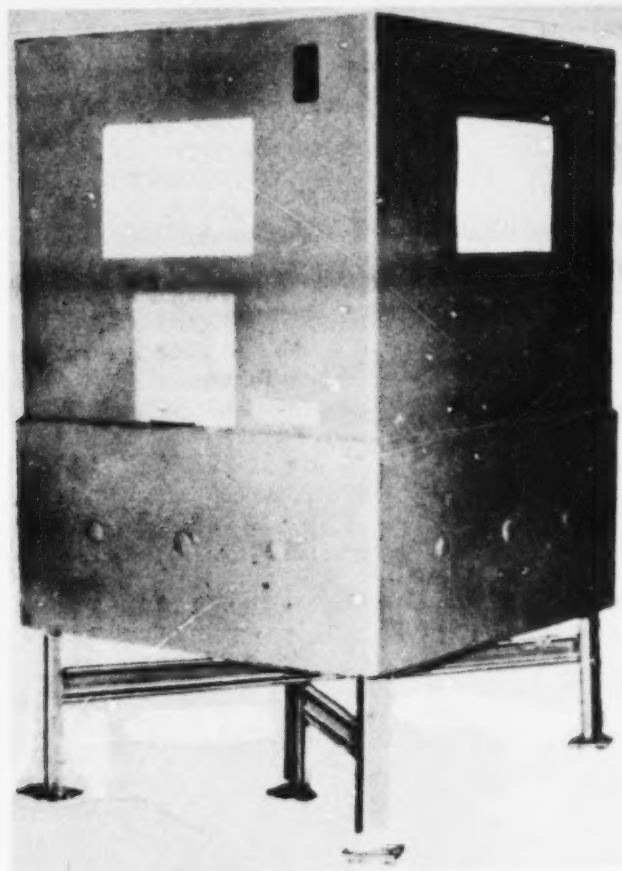


Figure 2-76

Use:

The Barricade is intended for use adjacent to hand grenade maintenance and renovation operations. It provides a protective enclosure into which an operator can "throw" a grenade he has reason to suspect may accidentally function. The Barricade affords protection to the operator and other immediate personnel should the grenade function or it provides a holding chamber should the grenade prove to be a dud. The Barricade was tested in compliance with MIL-STD-398 and can be used with all

fragmenting grenades except those having impact sensitive fuzes.

Description:

The Barricade is fabricated from heavy steel plates, box shaped and welded. Four channel iron legs support the structure and the large metal grenade containment sphere. The sphere is attached to the metal chute covering the barricade by a perforated aluminum duct. The duct attaches to the seven inch round opening on the barricade chute and extends at a 60 degree angle into

the interior of the containment sphere. The aluminum duct houses a flexible, accordian, folding, canvas sock.

The sock is a basic part of the machine and must be installed prior to using the barricade. The sock functions with the barricade's dud removal kit to remove dud grenades.

Difference Between Models:

The 1213 M1 differs from the original model in that no wheels are installed. Baffles within the barricade were removed and a sphere, duct assembly installed as a replacement. Original configuration is authorized with the restrictions requiring the operator to wear earplugs, ear muffs and a full face shield.

Tabulated Data:

APE No. 1213000M1

Unit of Issue Each

Installation Data:

Length 36 in.
Width 37 in.
Height 65 in.
Weight 1700 lbs

Associated Equipment:

None

Kits:

1213E002 Dud Removal Kit

Utilities Required:

None

Production Capacity

Not applicable

Shipping Data:

Length 47 in.
Width 43 in.
Height 76 in.
Cube 89 cu. ft.
Weight 2000 lbs

APE 1214M1--BOOTH, PAINT SPRAY

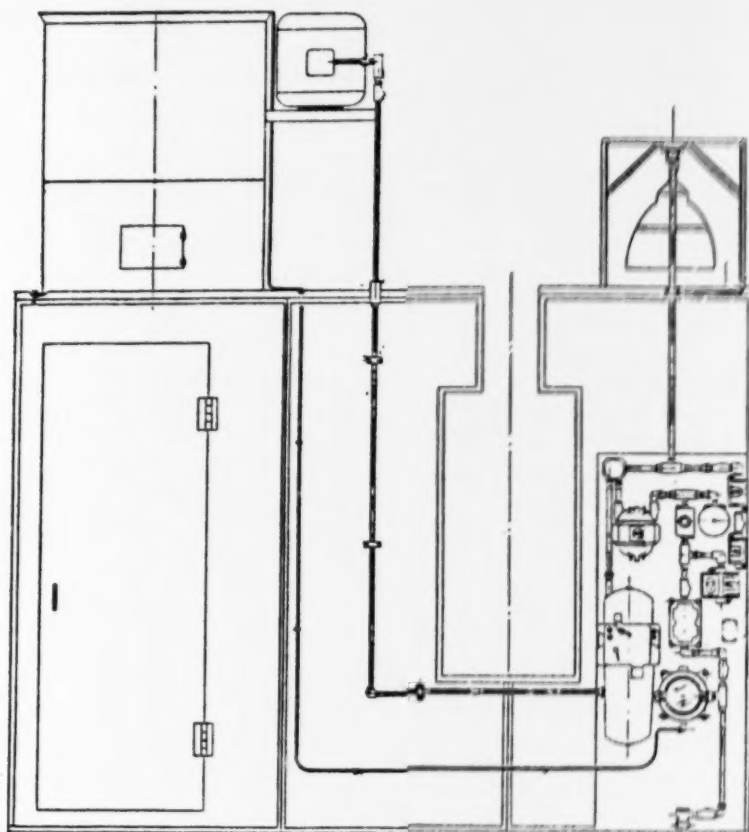


Figure 2-76.1.

Use:

The paint spray booth is used in production line painting and various items of ammunition and special weapons.

Description:

The booth is a floor style, self supported, dry filter type with a 19 foot face opening. It is com-

plete with exhaust fan system, automatic shut down control, mono-rail and roller conveyor openings.

Difference Between Models:

A Tech Data Package was developed to replace original purchase description, to insure conformity of design.

Tabulated Data:

APE No..... 12140000M1
 Unit of Issue Each
 Installation Data:
 Length 12 ft
 Width 19 ft 6 in.
 Height 9 ft plus
 maximum 4 ft 6 in. exhaust
 stack
 Weight Not available

Utilities Required:

220 vac, 3 phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length Not available
 Width Not available
 Height Not available
 Cube Not available
 Weight Not available

Associated Equipment:

APE 1022M1 Conveyor, Powered
 Belt
 APE 1044M1 System, Monorail
 Conveyor

Kits:

None

APE 1215M1--MACHINE, ROCKET DISASSEMBLY

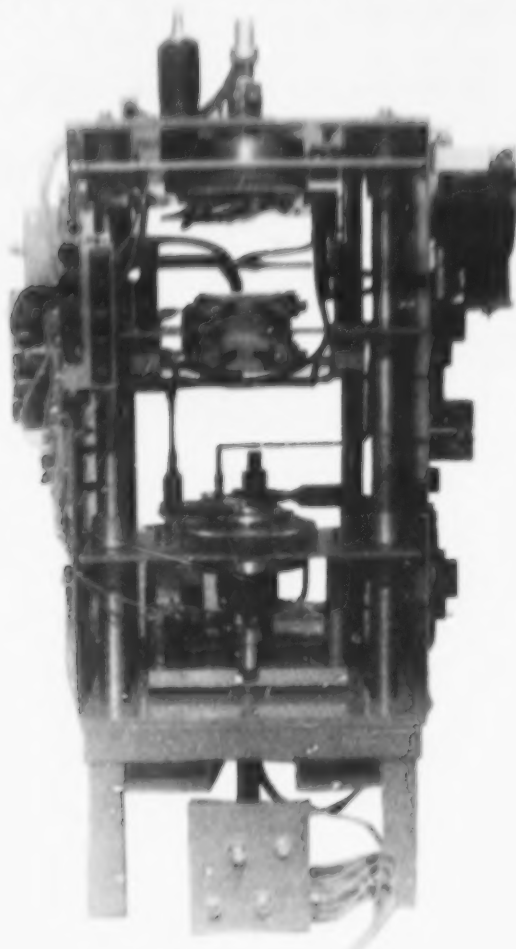


Figure 2-77.

Use:

The rocket disassembly machine is used to disassemble 3.5-inch and 66MM rockets.

Description:

The machine consists of a frame, lower head assembly, upper head assembly, fuze clamp assembly, detonator clamp assembly, pneumatic logic circuit board, remote control panel, and a hydraulic system.

Difference Between Models:

M1 has improved valving and revolution counting capability.

Tabulated Data:

APE No.	12150000M1
Unit of Issue	Each
Installation Data:	
Length	41 in.
Width	38 in.
Height	80 in.
Weight	1242 lb

Utilities Required:

Air at 100 psi and 100 cfm.

Production Capacity:
Depends on operation being
performed and condition of
rockets.

Shipping Data:

Length 64 in.
Width 48 in.
Height 92 in.
Cube 164 cu ft
Weight 1600 lb

Associated Equipment:

APE 1065, 1196M1, 1204.

Kits

1215E002 KIT, Replace Igniter
in 3.5-Inch Rocket
1215E003 KIT, Tighten or Re-
place Rivets in 3.5-
Inch Rocket Motor
1215E004 KIT, Hand Tools to As-
semble 3.5-Inch Rocket
1215E005 KIT, Drill Stake Marks
from M404A2 Fuze
1215E006 KIT, Remove Detonator
Housing from M404A2
Fuze

1215E007 KIT, Thread Chasing
and Holding Device for
M404 Fuze Body
1215E008 KIT, Hand Tools for
Changing Setback
Sleeve, M404A2 Fuze
1215E009 KIT, Staking Gun,
Guide, and Holding
Fixture
1215E010 KIT, Press Out and In-
sert Nozzle Closure
Plug
1215E049 KIT, Hand Tools for
Assembly of 66MM Rock-
et: M72
1215E050 KIT, Disassemble 66MM
HEAT Rocket: M72
1215E052 KIT, Alinement Bar

APE 1217M1--LINKING MACHINE, 7.62MM

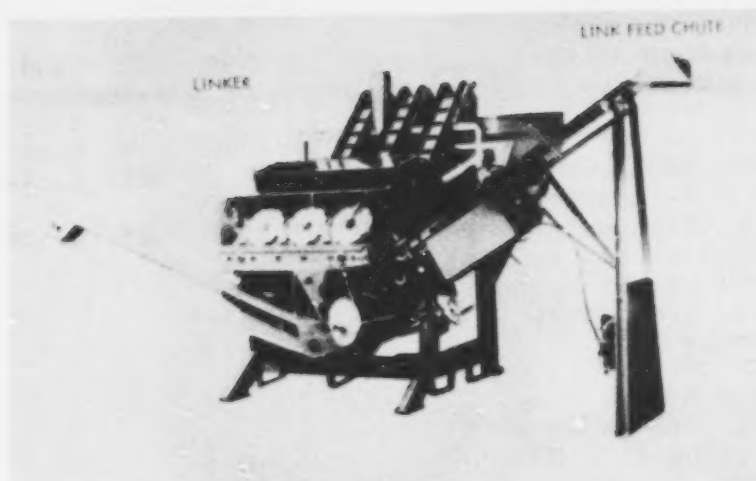


Figure 2-78.

Use:

The 7.62MM linking machine is used to straight link or ratio link 7.62MM cartridges with M13 links. The machine works with a sequence of 5 cartridges (i.e., 4-1, 3-2, 2-2-1, or 5-0) for ratio pack.

Description:

The machine consists of two separate units: a linker, and a link feed chute. The linker

unit is power operated and links cartridges in belts of various lengths. Cartridge belt break assembly is included to make belts containing 100 cartridges, 210 cartridges and 220 cartridges. One cartridge must be hand linked at the end of each belt. The cartridges can be linked in either a straight or ratio pack. The pack must be in sequence of five cartridges, namely: 2-2-1, 4-1 or 3-2 ratio, or all of one kind.

A 2-2-1 ratio would indicate two cartridges of one type, two of another type, and one of a third type. The link feed chute is attached to the linker for the linking operation. It feeds into the linker from two stations. An automatic shuttle device shifts the feed from one station to the other whenever a shortage of links occurs in the chute. The linker unit can be connected to a delinker machine, APE 2198, for ratio changing.

Difference Between Models:
Basic model included the delinker APE 2198.

Tabulated Data:

APE No. 12170000M1
Unit of Issue Each
Installation Data:

LINKER

Length 132 in.
Width 84 in.
Height 67 in.
Weight 1970 lb

LINK FEED CHUTE

Length 48 in.
Width 24 in.
Height 62 1/2 in.
Weight 155 lb

Utilities Required:

115/230 vac, 60 Hz, single phase, air at 100 psi.

Production Capacity:

600 cartridges per minute.

Shipping Data:

LINKER

Length 144 in.
Width 96 in.
Height 78 in.
Cube 624 cu ft
Weight 2140 lb

LINK FEED CHUTE

Length 95 in.
Width 58 in.
Height 68 in.

Associated Equipment:

APE 2198.

Kits:

None.

APE 1220--MACHINE, CRIMPING, VERTICAL

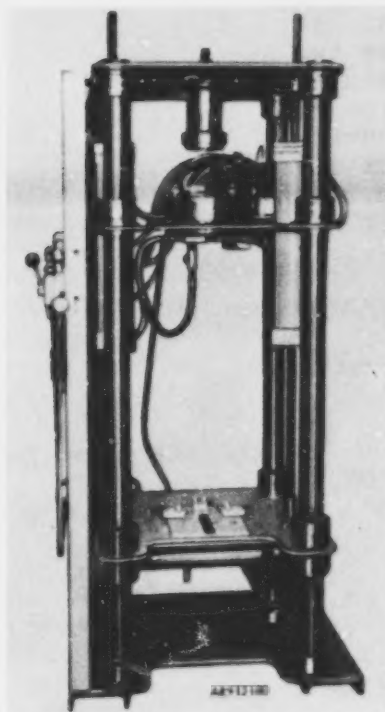


Figure 2-79.

Use:

Machine is used to assemble and crimp fixed artillery ammunition 37MM thru 106MM. The case is crimped with an eight stab type.

Description:

Machine consists of the platform with cartridge case shoe holder, crimping head, ogive and machine controls.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 12200000

Unit of Issue Each

Installation Data:

Length 40 in.

Width 48 in.

Height 68 in.

Weight 1600 lb

Utilities Required:

Air, 90 psi 50 cfm.

Production Capacity:

2100 per 8 hr shift.

Shipping Data:

Length 48 in.
 Width 54 in.
 Height 84 in.
 Cube 126 cu ft
 Weight 1750 lbs

Associated Equipment:

None.

Kits:

1220E001 Assemble and Crimp
 75MM M48, M61, M66 or
 M338 with M18 cart
 case
 1220E002 Assemble and Crimp
 75MM TSO, M312, M334
 to cart case M35
 1220E003 Assemble and Crimp
 76MM M93, M312, M315
 to cart case M26
 w/.150 crimp groove

1220E004 Assemble and Crimp
 76MM M304 & M339 to
 cart case M88
 1220E005 Assemble and Crimp
 76MM M42 and M312 to
 Cart case M26 w/.050
 groove
 1220E006 Assemble and Crimp
 90MM M71 to cart case
 M19
 1220E007 Assemble and Crimp
 90MM M307
 1220E008 Assemble and Crimp
 105MM M325, M326 to
 M94 and M95 cart case
 1220E009 Assemble and Crimp
 105MM M456 w/8 Stab
 Crimp
 1220E010 Assemble and Crimp
 57MM M307
 1220E011 Crimp Ogive on M90
 Fuze

APE 1221--MACHINE, HOLE PUNCH

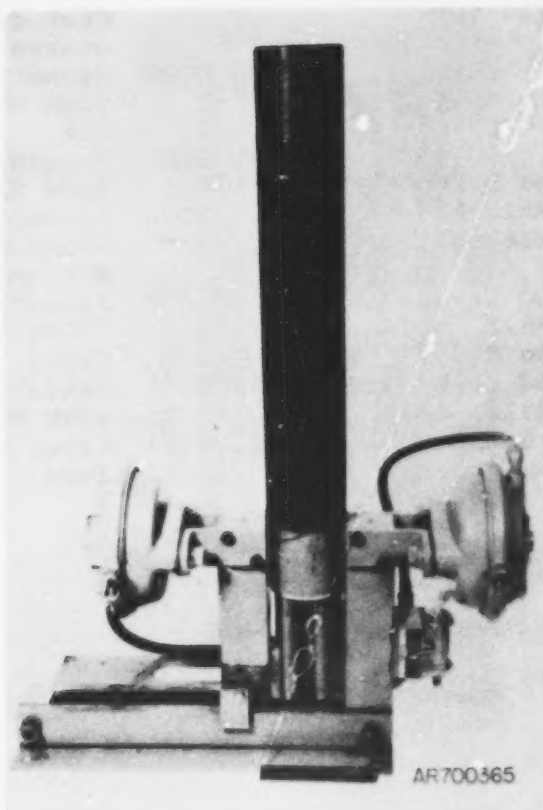


Figure 2-80.

Use:

The hole punch machine is used to punch pressure relief holes in the necks of fiber containers for 75MM through 120MM ammunition.

Description:

The machine consists of a metal slide assembled to a flat metal

base with two air brake cylinders attached to the metal slide. One guide block with die holder is stationary. The other is adjustable for the different diameter containers.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12210000

Unit of Issue Each

Installation Data:

Length 30 in.

Width 18 in.

Height 17 in.

Weight 75 lb

Utilities Required:

Air at 80 psi and 3 cfm.

Production Capacity:

2100 containers per 8 hour shift.

Shipping Data:

Length 41 in.

Width 18 in.

Height 20 in.

Cube 8 cu ft

Weight 120 lb

Associated Equipment:

None.

Kits:

None.

APE 1222--REMOVER, IGNITION CARTRIDGE AND PRIMER



Figure 2-81.

Use:

The ignition cartridge and primer remover is used to remove M32 and M34 percussion primers and M5A1 and M8 ignition cartridges from 81MM, M43A1 mortar cartridges and 60MM, M49A2 cartridges.

Description:

The remover consists of a shipping box which is used as the base mount, a table top, holding vises, flash shields and disassembly tools.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12220000

Unit of Issue Each

Installation Data:

Length 48 in.

Width 37-1/2 in.

Height 77 in.

Weight 400 lb

Utilities Required:

None.

Production Capacity:

3 cartridges per minute.

Shipping Data:

Length 48 in.

Width 31-1/2 in.

Height 20-1/2 in.

Cube 18 cu ft

Weight 400 lb

Associated Equipment:

None.

Kits:

None.

APE 1223--TORQUE FIXTURE, M54, M55, M500 SERIES,
M548, M564 AND M565 FUZES



Figure 2-82.

Use:

The torque fixture is used to hold M54, M55, M500 series, M548, M564 and M565 fuzes for testing the torque required to set the fuze.

Description:

The fixture consists of a frame which is to be fastened to a table or other rigid surface, a drive shaft with fuze adapter, and a ratchet device. A dual detent drive lug must be used for torque check of M548, M564 and M565 fuzes.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12230000

Unit of Issue Each

Installation Data:

Length 9-1/2 in.

Width 7-1/4 in.

Height 24 in.

Weight 23 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 21 in.

Width 12 in.

Height 9 in.

Cube 1.3 cu ft

Weight 40 lbs

Associated Equipment:

None.

Kits:

1223E001 KIT, Screwdriver

APE 1224--MACHINE, DISASSEMBLY, SHAPED CHARGE MUNITIONS

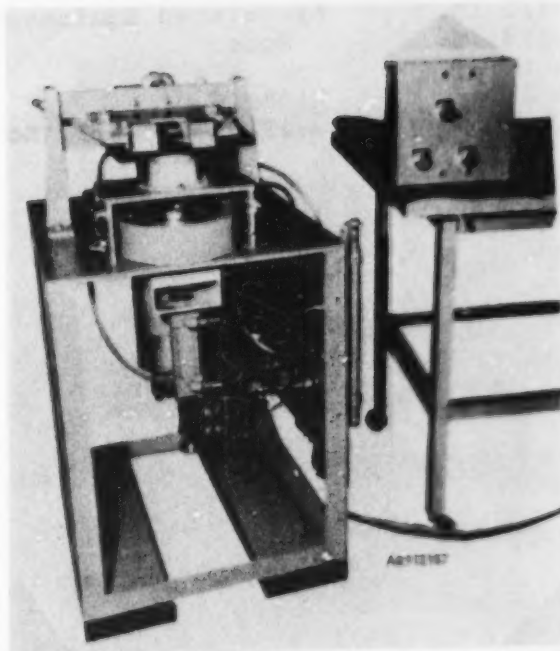


Figure 2-83.

Use:

To disassemble for modification renovation, or demilitarization, the projectile (with shaped charge) of 75MM through 105MM HEAT cartridges.

Description:

The machine consists of a frame assembly, air driven motor, vise assembly and component assembly for each size cartridge.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12240000
Unit of Issue Each

Installation Data:

Length 30 in.
Width 30 in.
Height 46 in.
Weight 1,100 lbs

Utilities Required:

Air at 90 psi and 83 cfm
maximum.

Production Capacity:

280 to 385 per hour.

Height not available

Cube 23.73 cu ft

Weight not available

Associated Equipment:

None.

Shipping Data:

Length not available

Width not available

Kits:

None.

APE 1227--MACHINE, VERTICAL DISASSEMBLY



Figure 2-84.

Use:

The vertical disassembly machine was developed to remove the fin and boom assembly from the projectile of 90MM HEAT: M371 and 105mm M341 cartridges.

Description:

The machine consists of a pneumatic drive motor, vise assembly,

cartridge elevating assembly, and a fluidic industrial control counter system assembled to a metal stand. The control system is arranged to permit operation of the machine starting system by remote control.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12270000

Unit of Issue Each

Installation Data:

Length 41 in.

Width 44 in.

Height 77 in.

Weight 900 lbs

Utilities Required:

Air at 90 psi and 25 cfm.

Production Capacity:

840 cartridges per 8 hour shift.

Shipping Data:

Length 48 in.

Width 54 in.

Height 84 in.

Cube 126 cu ft

Weight 1200 lbs

Associated Equipment:

None.

Kits:

1227E001 KIT, Disassemble 90MM:
M371 Cartridge

1227E002 KIT, Disassemble
105MM: M341 Cartridge

APE 1229M1--MACHINE, PRIME AND DEPRIME

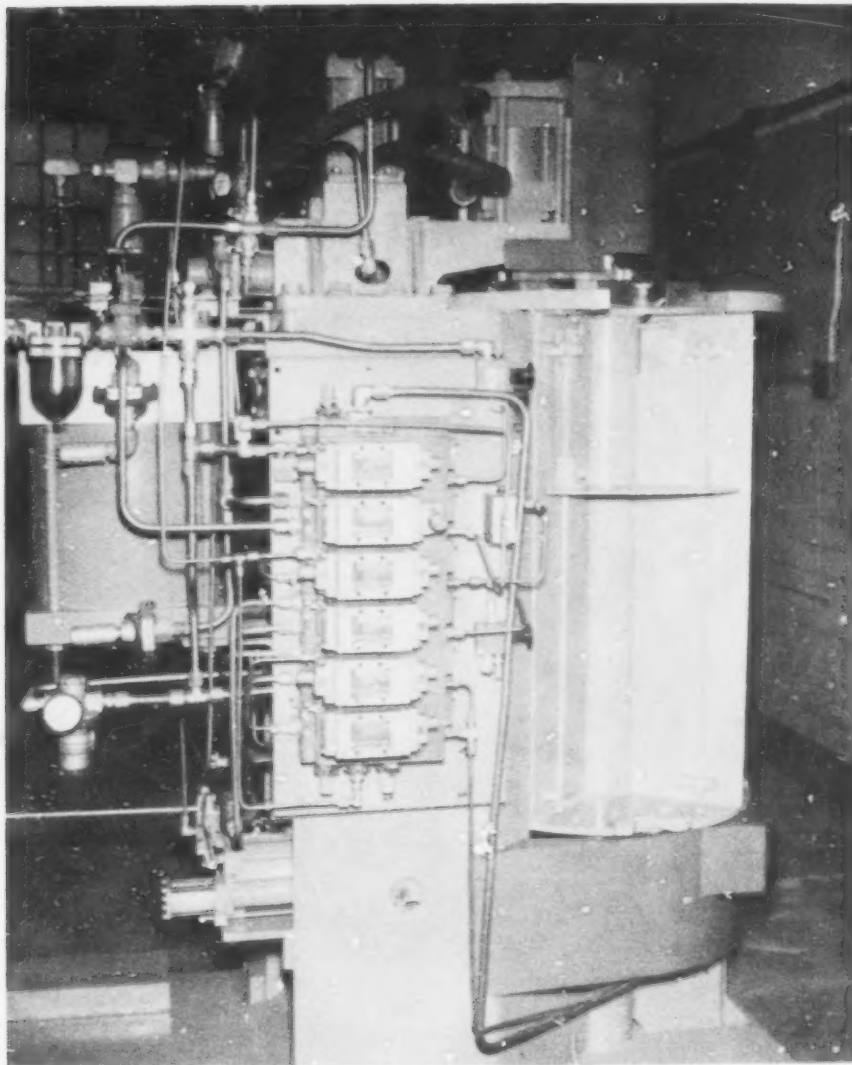


Figure 2-85.

Use:

The prime and deprime machine is used to insert or remove press type primers from 37MM through 106MM cartridge cases. It may also be used to remove screw type primers from 37MM through 106MM cartridge cases which will be demilitarized.

Description:

The machine design consists of a 1/2-inch thick steel barricade with a four station index turntable. An air-hydraulic unit supplies power to operate a punch cylinder. A series of valves and controls automatically function the machine.

Difference Between Models:

APE 1229M1 - Operational controls have been changed to a manifold system and pneumatic piping schematics are completely different.

Tabulated Data:

APE No. 122900000M1

Unit of Issue Each

Installation Data:

Length 54 in.

Width 36 in.

Height 71 in.

Weight 3120 lbs

Utilities Required:

Air at 100 psi and 75 cfm.

Production Capacity:

4 to 7 cartridge cases per minute.

Shipping Data:

Length 60 in.

Width 48 in.

Height 84 in.

Cube 140 cu ft

Weight 3370 lbs

Associated Equipment:

None.

Kits:

1229E002 KIT, Prime and Deprime
37MM: M17 Cartridge
Case

1229E003 KIT, Prime and Deprime
37MM: M16 and MK2
Cartridge Cases

1229E004 KIT, Prime and Deprime
40MM: M25 Cartridge
Case

1229E005 KIT, Prime and Deprime
57MM: M30 Cartridge
Case

1229E006 KIT, Prime and Deprime
Cartridge Case, 57MM:
M23; 75MM: M35; and
76MM: M26

1229E007 KIT, Prime and Deprime
75MM: M5, M9, M18
Cartridge Cases

1229E008 KIT, Deprime 75MM:
M31; 76MM: M88 and
M101 Cartridge Cases

1229E009 KIT, Prime and Deprime
Cartridge Case, 90MM:
M19, M27, M108; 105MM:
M32, M90, M95; 106MM:
M93, M94 Cartridge
Cases

1229E010 KIT, Prime and Deprime
105MM: M14 and M15
Cartridge Case

1229E012 KIT, Deprime 3-inch:
MK7 Mod 0 Cartridge
Case

1229E016 KIT, Demilitarize
M21A4 Boosters

1229E020 KIT, Remove Detonator
from Rocket Fuze
M404A2

APE 1231--CRIMPING MACHINE, RUBBER DIE, 150 TON

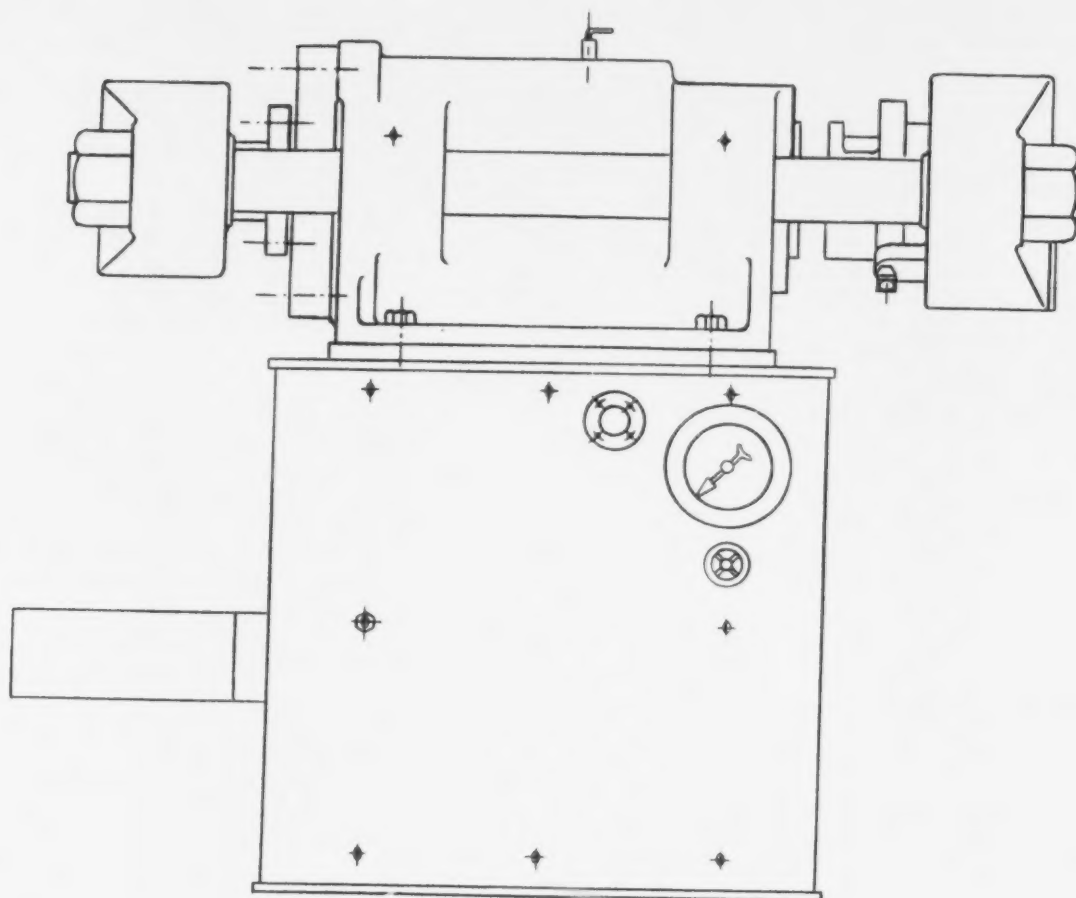


Figure 2-86.

Use:

The crimping machine is used to crimp cartridge cases to projectiles with a roll type crimp at the cartridge case mouth. It can be adapted for use on 40MM through 6-inch cartridges.

Description:

The crimping machine consists of two units. The crimping unit is

made up of a metal base, a crimping head and associated controls. The pump unit consists of a metal base which serves as the oil reservoir, an electric motor, a hydraulic pump, a filter unit, an oil cooler and electrical controls.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12310000

Unit of Issue Each

Installation Data:

CRIMPING UNIT

Length 71 in.

Width 44 in.

Height 54 in.

Weight 2800 lbs

PUMP UNIT

Length 71 in.

Width 52 in.

Height 74 in.

Weight 3000 lbs

Utilities Required:

230 VAC 3 phase, 60 Hz.

Production Capacity:

Not available.

Shipping Data:

CRIMPING UNIT

Length 75 in.

Width 48 in.

Height 62 in.

Cube 129 cu ft

Weight 3175 lbs

PUMP UNIT

Length 75 in.

Width 57 in.

Height 82 in.

Cube 203 cu ft

Weight 3305 lbs

Associated Equipment:

None.

Kits:

None.

APE 1236--FURNACE, DEACTIVATION

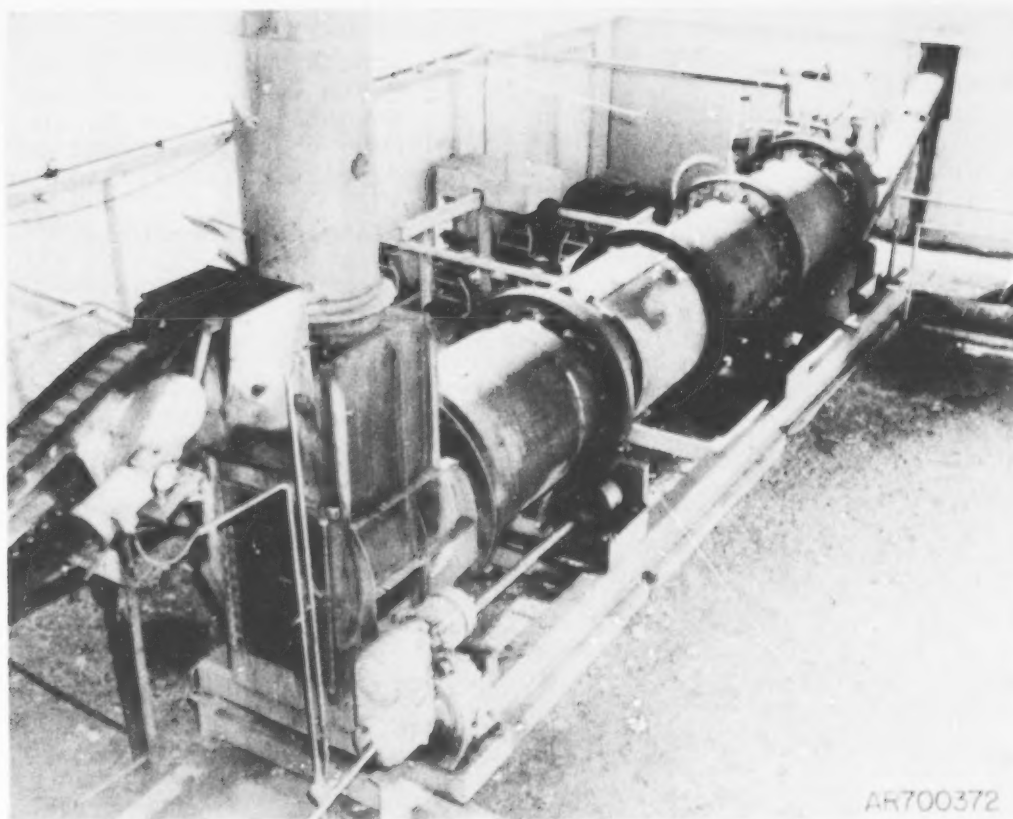


Figure 2-87.

Use:

The deactivation furnace was developed to demilitarize small arms ammunition, primers, fuzes, boosters, and detonators; to flash 75MM through 120MM projectiles after washout of explosive charge; and to deactivate drained chemical bombs, rockets, grenades and other miscellaneous items.

Description:

The furnace consists of the following assemblies: frame assembly, trunnion assembly, charge assembly, retort assembly, exhaust stack assembly, variable speed assembly, main control panel, auxiliary control panel, burner assembly, blower assembly, charge conveyor, and discharge conveyor.

Difference Between Models:
Original design.

Associated Equipment:
None.

Tabulated Data:

APE No. 12360000
Unit of Issue Each
Installation Data:
Length 32 ft (does
not include
charge and
discharge
conveyors)
Width 8 ft
Height 9 ft (does
not include
stack exten-
sion)
Weight 49,040 lbs
Utilities Required:
220 vac, 3 phase, 60 Hz; 1000
gallon fuel oil tank.
Production Capacity:
Refer to operational manual.

Shipping Data:

Length 36 ft
Width 10 ft
Height 11 ft
Cube 3,960 cu ft
Weight 50,000 lbs

Kits:

1236E001 KIT, Purge Panel
1236E002 KIT, Scrap Collection
System
1236E003 KIT, 18" Discharge
Conveyor and Housing
1236E004 KIT, Lead Recovery
System
1236E005 KIT, Retort Speed
Indicator (RPM)
1236E006 KIT, Automatic Shut
Down
1236E007 KIT, Heat Distribution
System

1236E009 KIT, Natural Gas Con-
version
1236E010 KIT, Air Pollution
Control System (APCS)

All Data on Pages 2-184 and 2-185, Including figure 2-88 Deleted.

APE 1240--SEPARATOR, MOTOR FROM WARHEAD

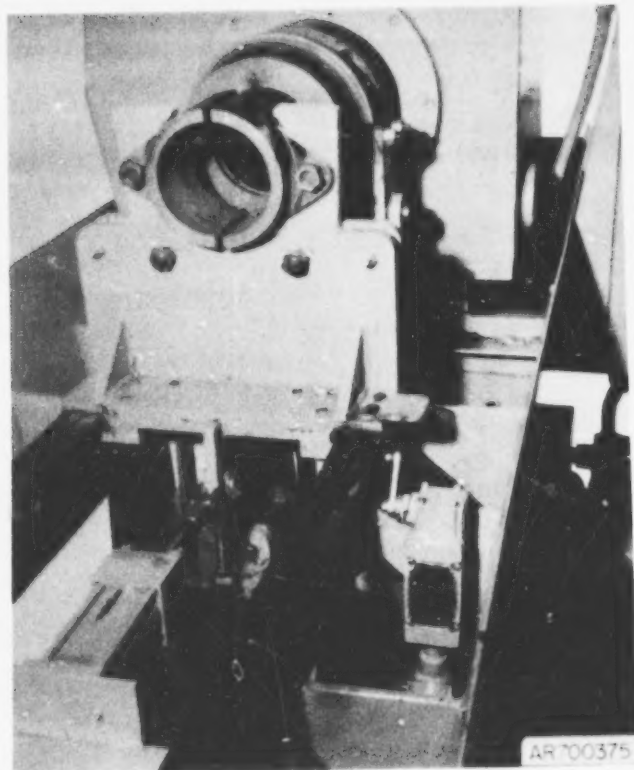


Figure 2-89.

Use:

The motor from warhead separator is used to remove warheads from rocket motor on 115MM: M55 and 4.5-inch: M32 rockets.

Description:

The separator consists of a modified commercial pipe threading machine and a remote control console.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 1240000
Unit of Issue Each

Installation Data:

SEPARATOR

Length 68 in.
Width 34 in.
Height 53 in.
Weight 1500 lbs

CONTROL CONSOLE

Length 24 in.
Width 23 in.
Height 50 in.
Weight 200 lbs

Utilities Required:

220 vac, 60 Hz, 3 phase; air
at 100 psi and 100 cfm.

Production Capacity:

1000 rockets per 8 hour shift.

Shipping Data:

Length 84
Width 42 in.
Height 72 in.
Cube 147 cu ft
Weight 1900 lbs

Associated Equipment:

None.

Kits:

None.

APE 1243--MACHINE, ABRASIVE CLEANING

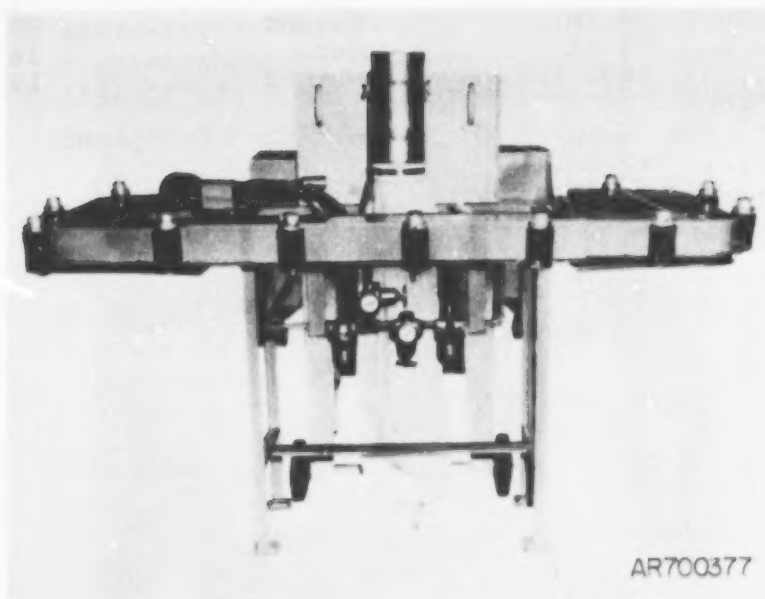


Figure 2-90.

Use:

The abrasive cleaning machine is used to clean the threads on the base of standard contour fuzes.

Description:

The machine consists of a metal frame on which is installed a pneumatic drive motor, gear reduction box, conveyor chain, chain guards and fuze holders; and an abrasive blast cabinet.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12430000
Unit of Issue Each
Installation Data:

FRAME

Length 72 in.
Width 24 in.
Height 45 in.
Weight 300 lbs.

BLAST CABINET

Length 24 in.
 Width 24 in.
 Height 54 in.
 Weight 275 lbs

Utilities Required:

Air at 80 psi and 62 cfm.

Production Capacity:

2000 fuzes per 8 hour shift.

Shipping Data:

FRAME

Length 76 in.
 Width 36 in.
 Height 54 in.

Cube 85 cu ft
 Weight 400 lbs

BLAST CABINET

Length 30 in.
 Width 36 in.
 Height 66 in.
 Cube 41.5 cu ft.
 Weight 350 lbs

Associated Equipment:

None.

Kits:

None.

APE 1247--WRENCH, FUZE, PNEUMATIC



Figure 2-91.

Use:

The pneumatic fuze wrench is used to assemble and disassemble standard contour artillery fuzes from artillery projectiles.

Description:

The unit consists of an air driven ratchet wrench with a rubber fuze inserting cup attached.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12470000

Unit of Issue Each

Installation Data:

WRENCH

Length 17 in.

Width 2 in.

Height 2 in.

Weight 4 lbs

CUP

Length 5-1/2 in.

Width 2-1/4 in.

Height 2-1/4 in.

Weight 1 lb

Utilities Required:

Air at 90 psi and 28 cfm.

Production Capacity:

350 fuzes per hour.

Shipping Data:

Length 18 in.

Width 4 in.

Height 4 in.

Cube 0.17 cu ft

Weight 5 lbs

Associated Equipment:

None.

Kits:

None.

APE 1250--ADAPTER, NOSE CAP

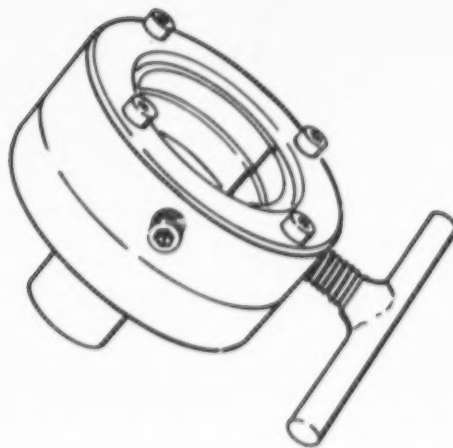


Figure 2-92.

Use:

The nose cap adapter is used to assemble and torque the nose cap on the spike of the 90MM: M371E1 HEAT projectile.

Description:

The unit consists of an adapter for gripping the nose cap.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12500000

Unit of Issue Each

Installation Data:

Length 2-1/4 in.

Width 3-1/4 in.

Height 1-13/16 in.

Weight 1-1/8 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 3 in.

Width 4 in.

Height 4 in.

Cube 48 cu in.

Weight 2 lbs

Associated Equipment:

None.

Kits:

None.

APE 1251--MACHINE, FUZE DEBURRING

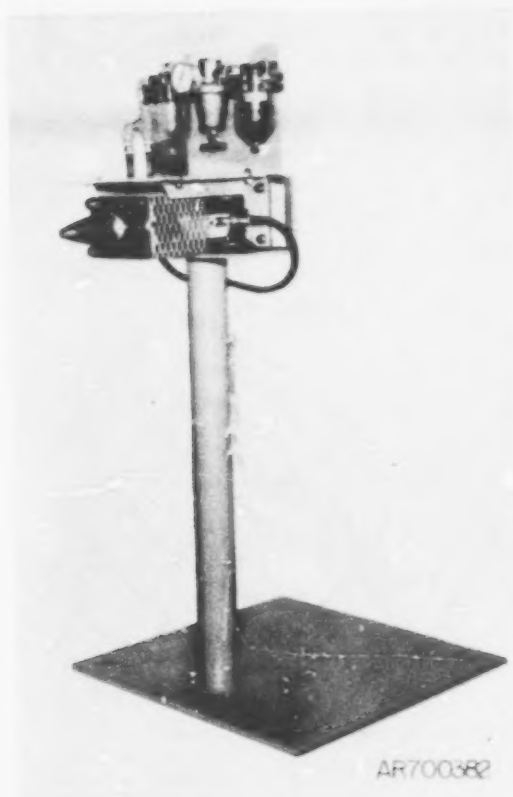


Figure 2-93.

Use:

The fuze deburring machine is used to remove staking burrs from fuze shoulders. It can debur fuzes with or without boosters assembled.

Description:

The machine consists of a pedestal mounted deburring mechanism with protective guards. The deburring mechanism is air operated. The fuze to be deburred is positioned in the machine by hand and rotated by hand.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12510000

Unit of Issue Each

Installation Data:

Length 30 in.

Width 24 in.

Height 48 in.

Weight 165 lbs

Utilities Required:

Air at 90 psi and 60 cfm.

Production Capacity:

Depends on condition of
fuzes.

Shipping Data:

Length 53 in.

Width 27 in.

Height 34 in.

Cube 28 cu ft

Weight 318 lb

Associated Equipment:

None.

Kits:

None.

APE 1252 TESTER, AIR POWERED, VACUUM TESTING



Figure 2-94.

Use:

The container tester is used to check containers for leakage by the application of either pressure or vacuum, as required.

Description:

The tester consists of two chambers, a control panel, and a manometer. One chamber is used for testing and the other is used as a surge chamber.

Difference Between Models:
Original design.

Production Capacity:
Not applicable.

Tabulated Data:

APE No. 12520000
Unit of Issue Each
Installation Data:
Length 36 in.
Width 36 in.
Height 60 in.
Weight 78 lbs
Utilities Required:
Air at 60 psi and 2 cfm.

Shipping Data:

Length 24 in.
Width 22 in.
Height 27 in.
Cube 8.25 cu ft
Weight 100 lbs

Associated Equipment:
None.

Kits:

1252E002 KIT, Container Tester,
Vacuum Pressure,
Air Operated for M542
Fuze Container

APE 1253 -- SHIELD, OPERATIONAL

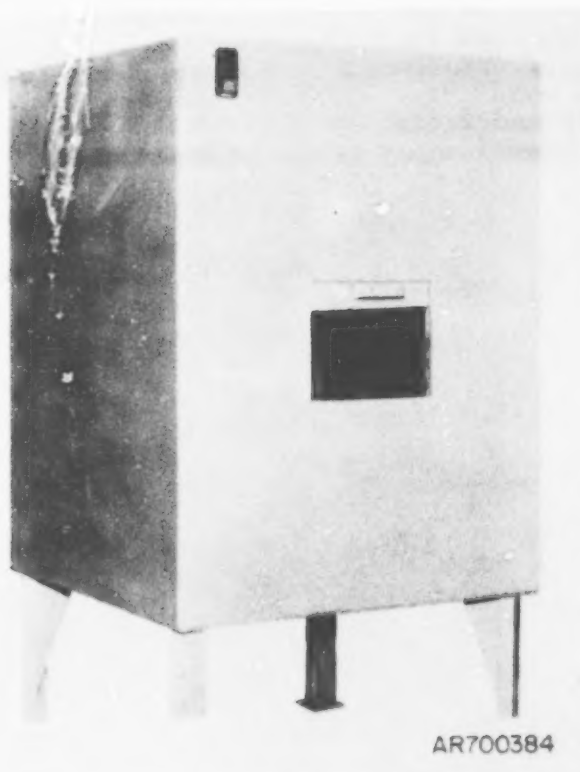


Figure 2-95.

Use:

The operational shield is used to provide personnel protection during the staking operation of M204A1 hand grenade fuzes. Not approved for use with WP filled hand grenades.

Description:

The shield is constructed of heavy metal plates. It stands on four legs and has an access door on one side.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12530000

Unit of Issue Each

Installation Data:

Length 36 in.

Width 36 in.

Height 65 in.

Weight 725 lbs

Utilities Required:

Air at 80 psi & 100 cfm.

Production Capacity:

Not applicable.

Shipping Data:

Length 48 in.

Width 42 in.

Height 84 in.

Cube 98 cu ft

Weight 900 lb

Associated Equipment:

APE 1065, 1065E001.

Kits:

None.

APE 1254M1--MACHINE, PRIMER STAKING AND CONTINUITY TESTING

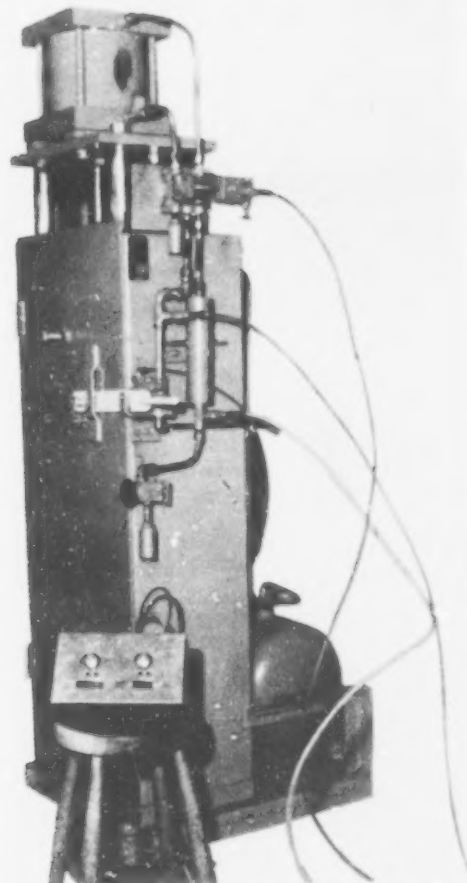


Figure 2-96.

Use:

The primer staking and continuity testing machine is used to stake the M86 primer into the 105MM M150 series cartridge case and measure the electrical resistance between the cartridge case and the primer. It has the capability to primer stake and continuity test the primer in a complete round.

Description:

The machine consists of an operational shield with an air operated cylinder, an electrical probe, a staking head, an ohmmeter, a time control air valve, and a remote control system for use when complete rounds are processed.

Difference Between Models:

The APE 1254M1 machine has changed the bottom deflector to increased inside height to accommodate complete rounds and has added remote control capability.

Tabulated Data:

APE No. 12540000M1

Unit of Issue Each

Installation Data:

Length 36 in.

Width 25 in.

Height 82 in.

Weight 1000 lbs

Utilities Required:

Air at 80 psi and 80 cfm.

Production Capacity:

840 cartridge cases per 8 hour shift.

Shipping Data:

Length 48 in.

Width 30 in.

Height 96 in.

Cube 70 cu ft

Weight 1200 lbs

Associated Equipment:

None.

Kits:

1254E001 KIT, Stake M80 and M83
Primers into 105MM:
M115 and M148 Car-
tridge Cases

1254E002 KIT, Stake M58 Primers
into 90MM: M108 Car-
tridge Cases

APE 1259--LINKING MACHINE, 7.62MM



Figure 2-97.

Use:

The linking machine is used to link 7.62MM cartridges into M13 links. It can link straight pack or ratio pack in any sequence of five cartridges (i.e., 2-2-1, 3-2, 4-1).

Description:

The linking machine is an APE 1114 link-delink machine without the delink features. The linker consists of cartridge feed chutes, a link feed assembly, a drum type linking mechanism, and a metal frame.

Difference Between Models:
Original design.

Production Capacity:
300 cartridges per minute.

Tabulated Data:

APE No. 12590000

Unit of Issue Each

Installation Data:

Length 40 in.

Width 50 in.

Height 60 in.

Weight 500 lbs

Utilities Required:

115/230 vac, 60 Hz, single
phase, 4.6 amp.

Shipping Data:

Length 46 in.

Width 43 in.

Height 55 in.

Cube 63 cu ft

Weight 743 lbs

Associated Equipment:

None.

Kits:

1114E001 KIT, Blank Adapter

APE 1263--TORQUING FIXTURE, FUZE BOOSTER

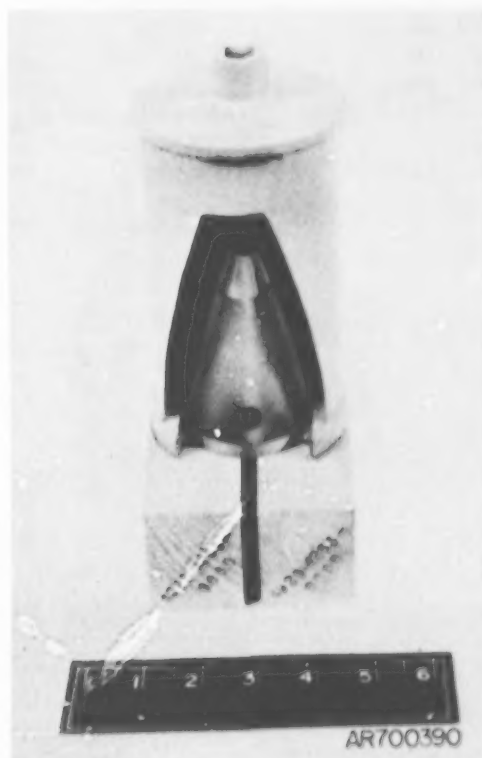


Figure 2-98.

Use:

The fuze booster torquing fixture is used to test the disassembly torque of the booster from the fuze.

Description:

The unit consists of a wrench adapter and two wooden booster holder blocks. The wrench adapter is cylindrical, has a

standard contour fuze configuration opening with fuze lugs at the bottom, and a 1/2-inch square drive socket on top for assembly to a torque wrench. The booster holder blocks are to be used with a vise.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12630000

Unit of Issue Each

Installation Data:

ADAPTER

Length 3-5/8 in.

Width 3-5/8 in.

Height 7-1/2 in.

Weight 3 lbs

BLOCKS

Length 5-5/8 in.

Width 1-11/16 in.

Height 2-1/4 in.

Weight 2 lbs

Utilities Required:

None.

Production Capacity:

Not established.

Shipping Data:

Length 12 in.

Width 8 in.

Height 5 in.

Cube 0.3 cu ft

Weight 6 lbs

Associated Equipment:

None.

Kits:

None.

APE 1270--MACHINE, AUTOMATIC LID REMOVAL

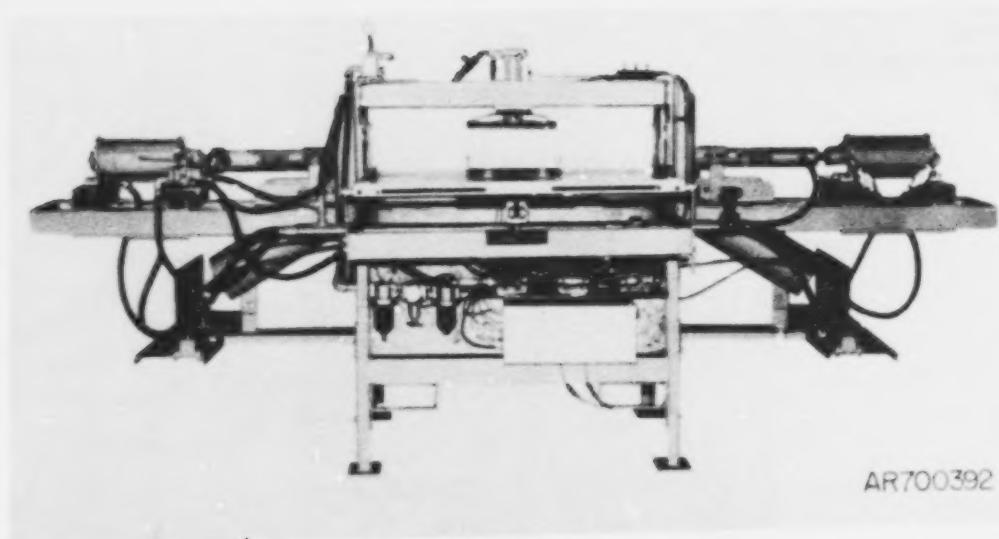


Figure 2-99.

Use:

The automatic lid removal machine is used to automatically remove one or both lids from fiber containers for 40MM through 4.2" ammunition (except HEAT ammunition).

Description:

The machine consists of a metal frame with a feed table and ejection table. A clamping cylinder is mounted between the two tables. Pull cylinders are mounted on the right and left sides of the frame. A fluidic control system automatically functions the machine.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12700000

Unit of Issue Each

Installation Data:

Length 125 in.

Width 52 in.

Height 52 in.

Weight 1140 lbs

Utilities Required:

Air at 100 psi.

Production Capacity:

600 containers per hour.

Shipping Data:

Length 132 in.

Width 57 in.

Height 61 in.

Cube 277 cu ft

Weight 1550 lbs

Associated Equipment:

None.

Kits:

1270E001 KIT, Clamp Shoes, 40MM
Through 60MM

1270E002 KIT, Clamp Shoes, 75MM
Through 81MM

1270E003 KIT, Clamp Shoes, 90MM
Through 4.2" Mortar

APE 1272--GAGE, DIAL INDICATING

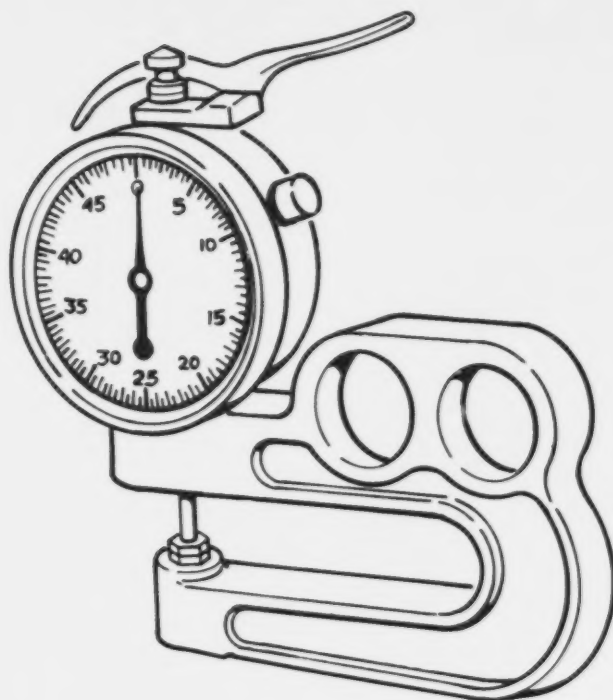


Figure 2-100.

Use:

The dial indicating gage is used to determine the wall thickness of M72 series rocket launchers used with 66MM rocket.

Description:

The unit is a modified commercial thickness gage. The one jaw of the gage is modified.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12720000
Unit of Issue Each
Installation Data:
Length 9-1/4 in.
Width 3/4 in.

Height 10-3/4 in.

Weight 4 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 10 in.

Width 1 in.

Height 10 in.

Cube 100 cu in.

Weight 5 lbs

Associated Equipment:

None.

Kits:

None.

APE 1277--TOOL, LINK-DELINK, 40MM M16 LINK

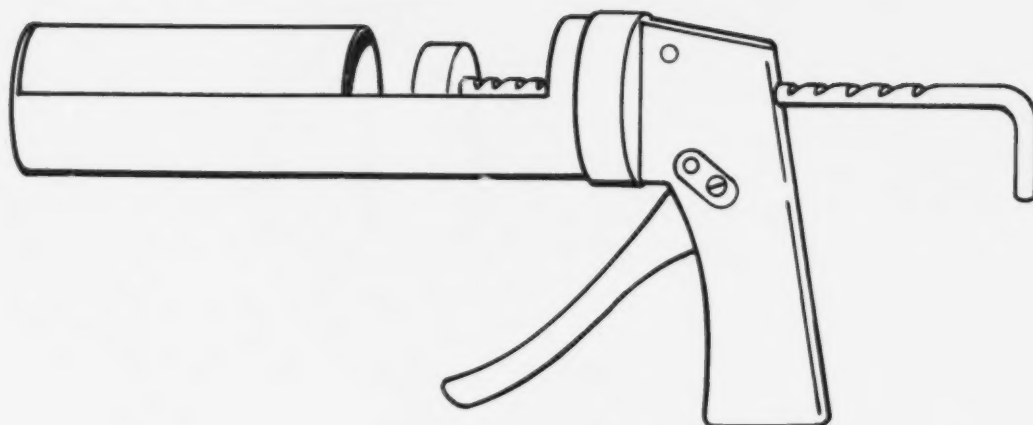


Figure 2-101.

Use:

The link and delink tool is used to link or delink 40MM M384 cartridges into M16 links.

Description:

The tool consists of a modified heavy duty caulking gun.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12770000
Unit of Issue Each
Installation Data:
Length 14 in.
Width 2 in.

Height 7 in.

Weight 5 lb

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 15 in.

Width 3 in.

Height 8 in.

Cube 0.21 cu ft

Weight 6 lb

Associated Equipment:

None.

Kits:

None.

APE 1278M1--TANK, HOT DIP, JUNGLE PACK AMMUNITION

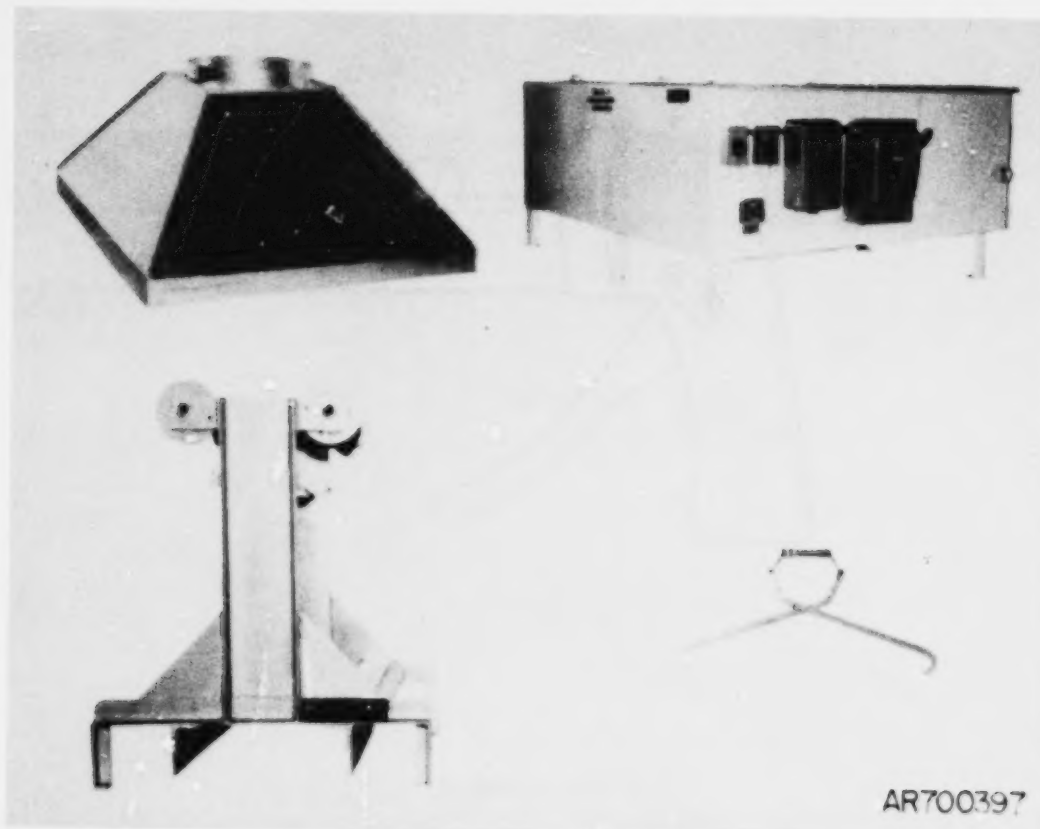


Figure 2-102.

Use:

The equipment is used to jungle pack 81MM and 4.2-inch mortar ammunition.

Difference Between Models:

The 1278M1 Hot Dip Tank has a stainless steel inner liner.

Description:

The equipment consists of a dip tank for heating sealing compound, an exhaust ventilator hood (furnished CONUS installations only), two wrapping fixtures, and four pairs of lifting tongs. The inside dimensions of the tank are 24" minimum width, 24" minimum depth, and 60" minimum length.

Tabulated Data:

APE No. 12780000M1
Unit of Issue Each

Installation Data:

Length not available
Width not available
Height not available
Weight not available

(2-211 Blank)/2-212

Utilities Required:
 220 vac, 3 phase, 60 Hz.
 Production Capacity:
 Not applicable.

Shipping Data:

BOX

Length 58 in.
 Width 50 in.
 Height 37 in.
 Cube 61 cu ft
 Weight 645 lb

CRATE

Length 100 in.
 Width 77 in.
 Height 49 in.
 Cube 215 cu ft
 Weight 2540 lb

Associated Equipment:

None.

Kits:

1278E001 KIT, Centering Band
 Holding Rack
 1278E002 KIT, Counter Balance
 for Dip Tank Cover
 1278E003 KIT, Obturator Hold-
 ing Rack

APE 1280M1--BOOTH, PAINT SPRAY

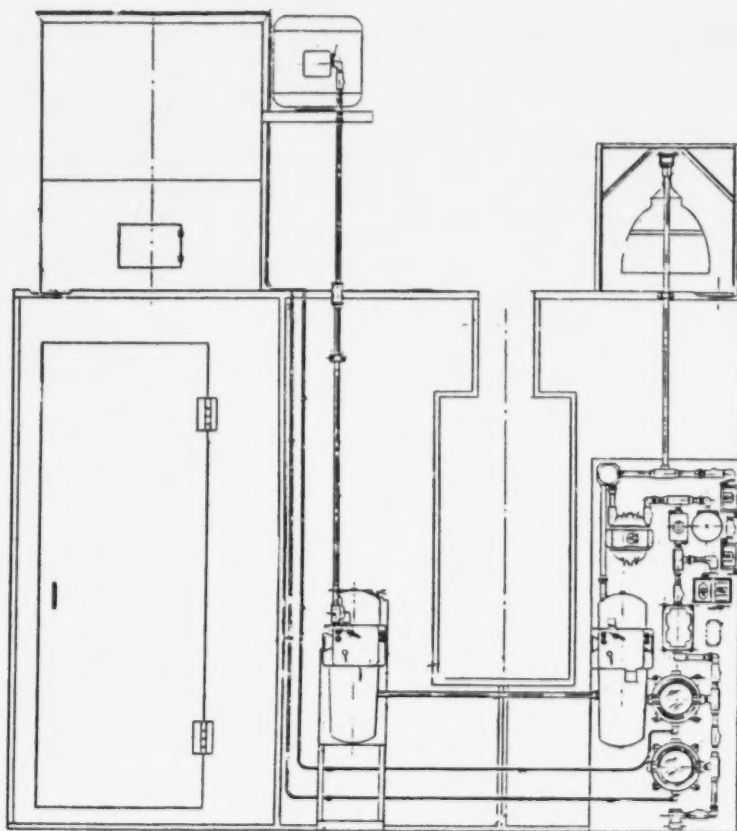


Figure 2-102.1.

Use:

The paint spray booth is used in production line painting of packing materials and ammunition items.

Description:

The booth is a floor style, self supported, dry filter type with a 32 foot face opening. It is complete with exhaust fan system, automatic shut down control, mono-rail and roller conveyor openings.

Difference Between Models:

A Tech Data Package was developed to replace original purchase description, to insure conformity of design.

Tabulated Data:

APE No.	12800000M1
Unit of Issue	Each
Installation Data:	
Length	12 ft.
Width	32 ft. 6 in.
Height	9 ft. plus max. 4 ft. 6 in. exhaust stack

Utilities Required:

220 vac, 3 phase, 60 Hz.

Production Capacity:

Not applicable.

Associated Equipment:

APE 1022M1 Conveyor, Powered Belt

APE 1044M1 System, Monorail
Conveyor

Shipping Data:

Kits:

None.

Length Not available
Width Not available
Height Not available
Cube Not available
Weight Not available

APE 1283--MACHINE, DEEP CAVITY, DRILL AND RESIZE

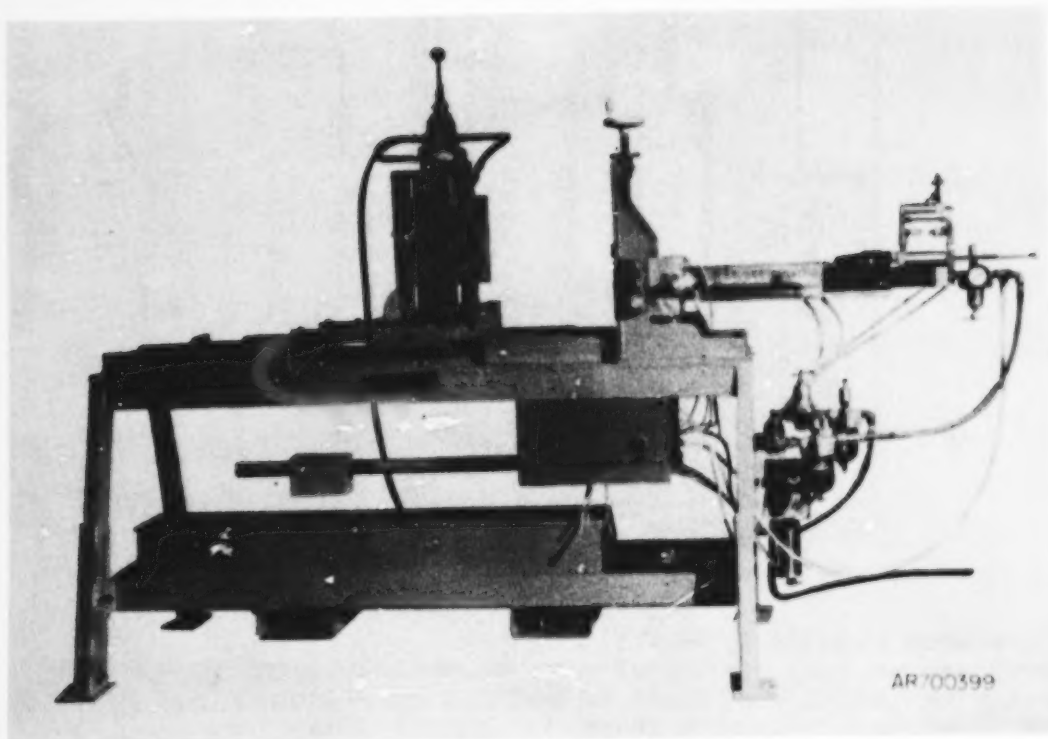


Figure 2-103.

Use:

The deep cavity and resize drill is used to drill out or resize the fuze cavity in 75MM through 280MM explosive loaded projectiles. It can also be used for powered thread cleaning.

Description:

The drill consists of a metal frame, a projectile holding assembly, a self-centering drill, and pneumatic controls to operate the drill.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12830000

Unit of Issue Each

Installation Data:

Length 98 in.

Width 39-7/8 in.

Height 68-9/16 in.

Weight 925 lbs

Utilities Required:

Air at 90 psi.

Production Capacity:

Depends on size of projectile.

Shipping Data:

Length 108 in.

Width 53 in.

Height 72 in.

Cube 245 cu ft

Weight 1334 lbs

Associated Equipment:

None.

Kits:

1283E001 KIT, Powered Thread
Cleaner

APE 1286--TANK, HOT DIP

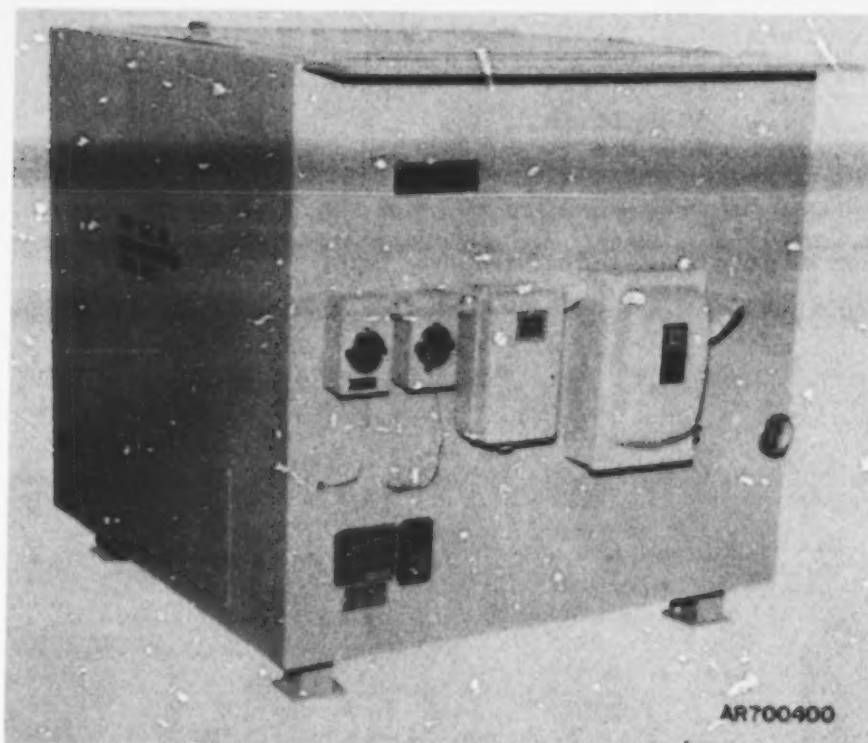


Figure 2-104.

Use:

The hot dip tank is used for dip-sealing wrapping and packages and resealing hermetically sealed containers.

Description:

The tank is constructed of metal and is double walled. It is electrically heated and has dual thermostat controls. The lid on the tank is supported by a fusible link when open to extinguish a fire if it should start in the melted sealing compound.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12860000
Unit of Issue Each

Installation Data:

Length 36 in.
Width 36 in.
Height 42 in.
Weight 940 lbs

Utilities Required:

220 vac, 60 Hz, 3 phase.

Production Capacity:

Not applicable.

Shipping Data:

Length 60 in.
Width 50 in.
Height 52 in.
Cube 90 cu ft
Weight 1240 lbs

Associated Equipment:

None.

Kits:

None.

APE 1288--HOLDING FIXTURE, GRENADE, X-RAY

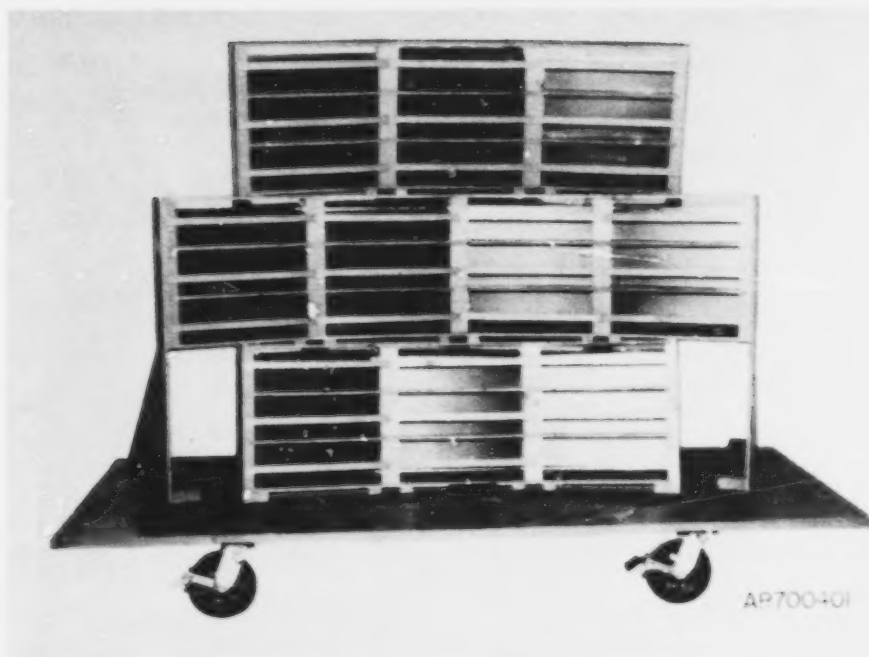


Figure 2-105.

Use:

The holding fixture is used to hold grenades or grenade fuzes in the proper position for X-ray examination.

Description:

The fixture consists of a wooden rack built to hold 270 grenades or 330 fuzes and X-ray film cassettes. The rack is curved so that all grenades or fuzes receive equal intensity from the X-ray head.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12880000

Unit of Issue Each

Installation Data:

Length 96-5/8 in.

Width 38-1/8 in.

Height 68 in.

Weight 318 lb

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 100 in.
Width 43 in.
Height 20 in.
Cube 50 cu ft
Weight 613 lb

Associated Equipment:

APE 2068M2, 2074.

Kits:

None.

APE 1294--VISE, PNEUMATIC, COMPLETE ROUND

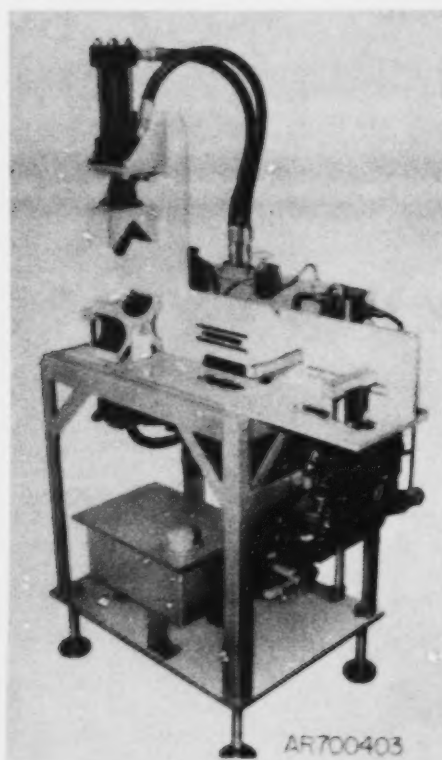


Figure 2-106.

Use:

The pneumatic vise is used to secure 75MM through 106MM projectiles or cartridges during normal maintenance operations.

Description:

The vise consists of a metal frame with a rotating vise jaw and a cartridge case rest. An air operated hydraulic pump is mounted in the framework. Above the frame table is mounted a hydraulic cylinder with a vise jaw which clamps the projectile or cartridge into the rotating jaw.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12940000

Unit of Issue Each

Installation Data:

Length 35 in.

Width 25 in.

Height 58 in.

Weight 200 lbs

Utilities Required:

Air at 100 psi and 28 cfm.

Production Capacity:

Not applicable.

Shipping Data:

Length 42 in.
Width 32 in.
Height 72 in.
Cube 56 cu ft
Weight 350 lbs

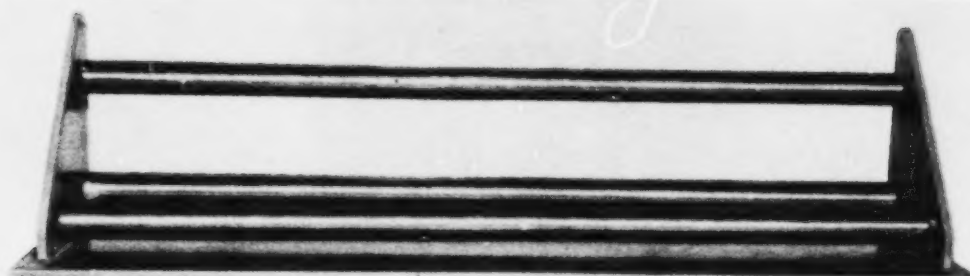
Associated Equipment:

None.

Kits:

None.

APE 1295--REMOVER, TEAR STRIP



AR700404

Figure 2-107.

Use:

The tear strip remover is used to hold large cylindrical containers while the tear strip is being removed.

Description:

The remover consists of a metal frame with three rollers assembled to the frame. The rollers are positioned so that a container can turn when the tear strip is being removed.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12950000

Unit of Issue Each

Installation Data:

Length 53 in.

Width 12 in.

Height 13 in.

Weight 85 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 60 in.
Width 16 in.
Height 18 in.
Cube 10 cu ft
Weight 150 lbs

Associated Equipment:

None.

Kits:

None.

APE 1299--MACHINE, SINGLE PURPOSE PULL TEST

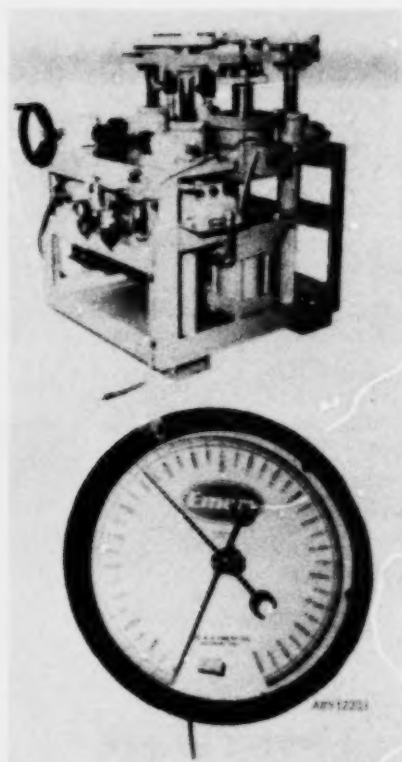


Figure 2-108.

Use:

The single purpose pull test machine is used as a surveillance test machine to pull test fixed type artillery ammunition ranging in size from 40MM thru 106MM. This machine has a controlled rate of pull.

Description:

The machine consists of a frame to which three adjustable screw jacks are mounted for height adjustment to the vise jaw assembly. The machine is equipped with a load cell and indicating dial for pull force measurement readings and a control panel box for remote operation.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 12990000
Unit of Issue Each
Installation Data:
Length 37 in.
Width 34 in.
Height 65 max in.
Weight 1500 lbs
Utilities Required:
110 VAC and 80 psi air.
Production Capacity:
Not applicable.

Shipping Data:

Length 47 in.
Width 44 in.
Height 65 in.
Cube 77.79 cu ft
Weight 1625 lbs

Associated Equipment:
None.

Kits:

1299E001 Pull Test of 40MM,
M81, M91, MK2, MK11
1299E002 Pull Test of 57MM,
M303, M306, M307, M308
1299E003 Pull Test of 75MM,
M48, M61, M64, M66,
M338
1299E004 Pull Test of 75MM,
M309, M310, M311

1299E005 Pull Test of 75MM,
M334
1299E006 Pull Test of 75MM,
M349
1299E007 Pull Test of 76MM,
M42, M62, M93, M312,
M315
1299E008 Pull Test of 76MM,
M319, M339, M340,
M352, M361
1299E009 Pull Test of 90MM,
M77, M79, M82, M133,
M304, M313, M317,
M319, M332, M336
1299E010 Pull Test of 90MM,
M71
1299E011 Pull Test of 105MM,
M456
1299E012 Pull Test of 105MM,
M323, M325
1299E013 Pull Test of 105MM,
M344
1299E014 Pull Test of 105MM,
M326
1299E015 Pull Test of 105MM,
M341
1299E016 Pull Test of 105MM,
M345 and 106MM M346
1299E017 Pull Test of 105MM,
M392
1299E018 Calibration of Load
Cell (Issue with
Machine)
1299E020 KIT, Pull Test of
105MM M60 Smoke and
HE Rounds

TM 43-0001-47

APE 1300M1--EXPLOSIVE WASHOUT PLANT

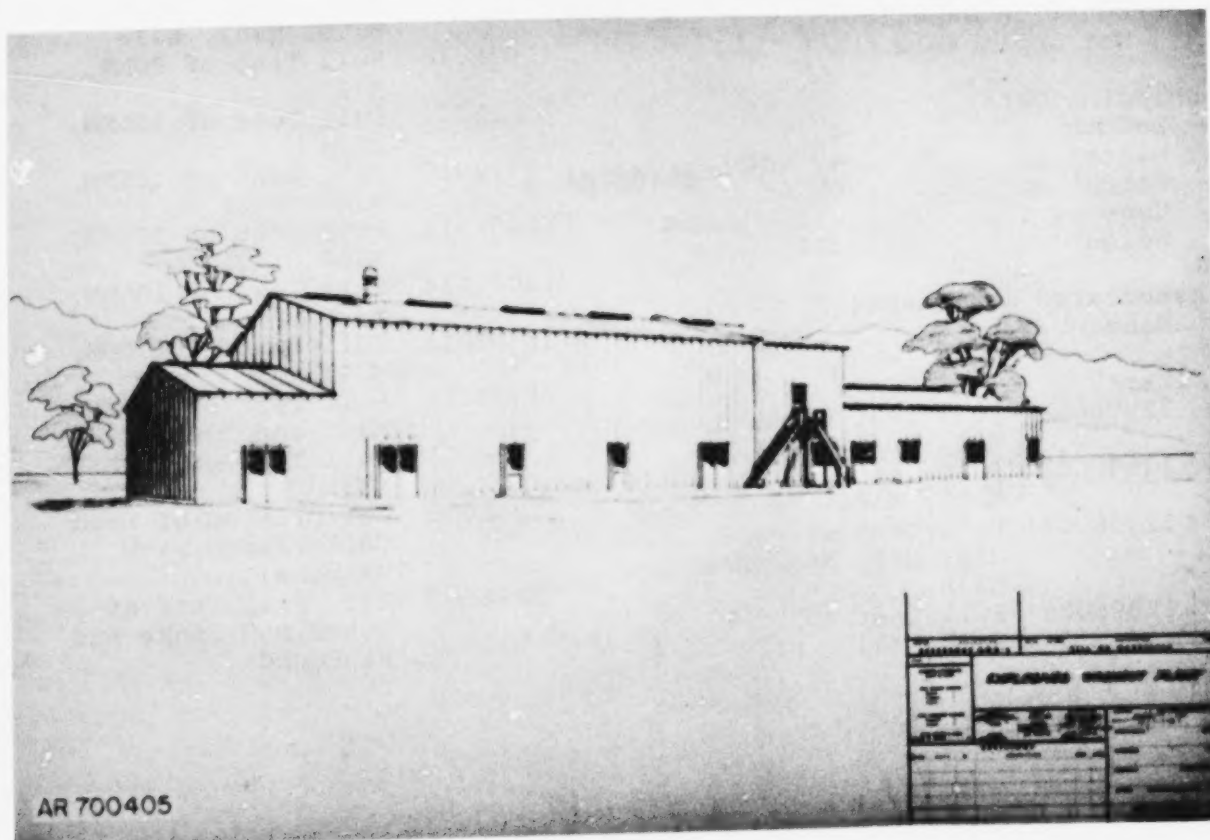


Figure 2-109.

APE 1300M1--EXPLOSIVE WASHOUT PLANT

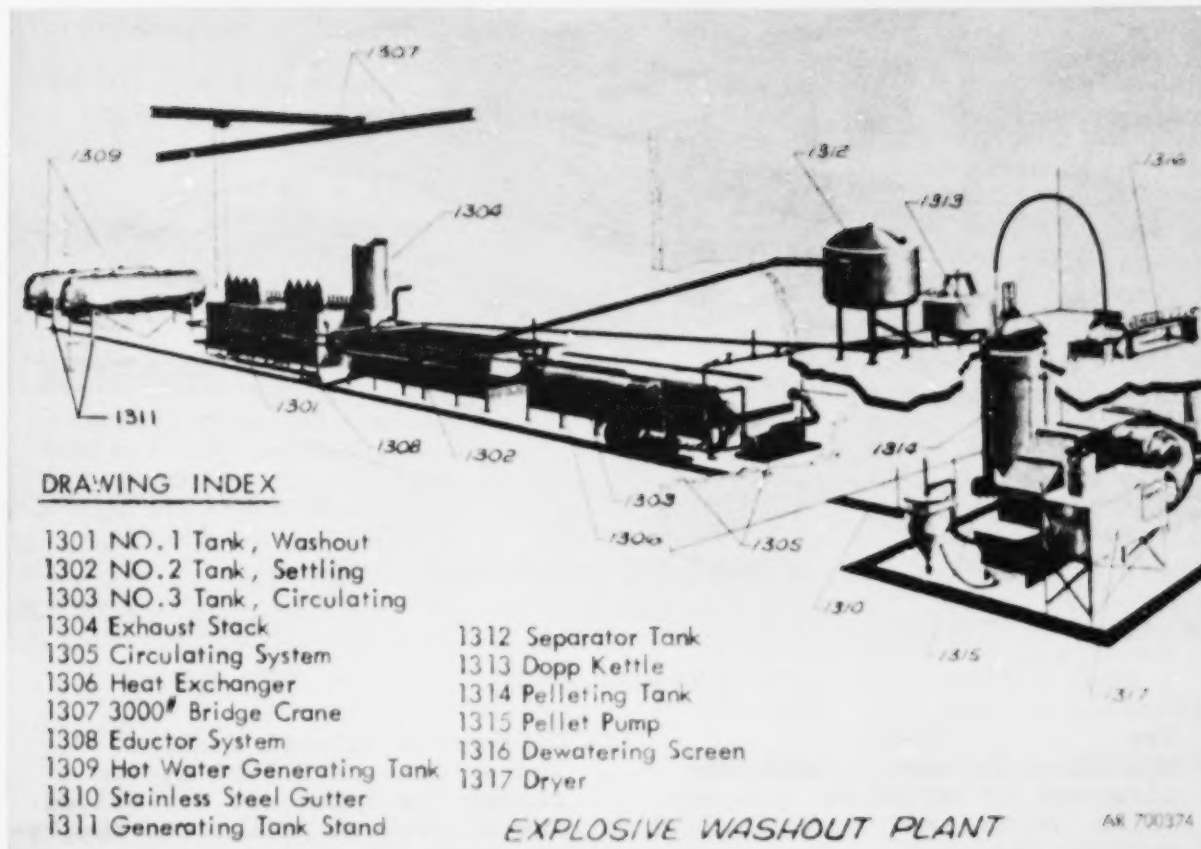
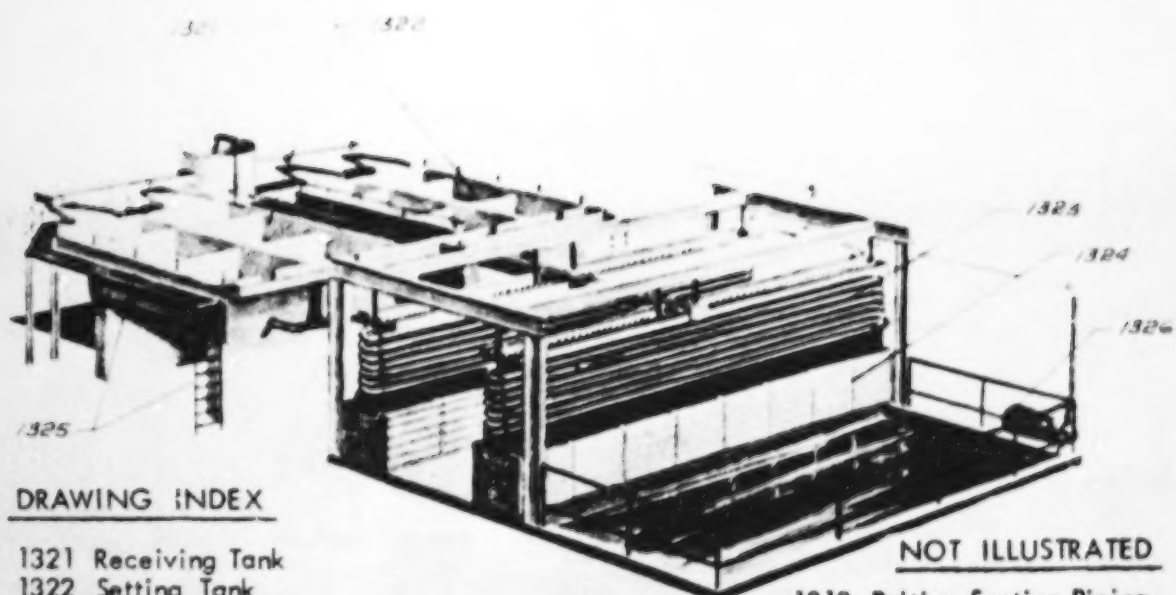


Figure 2-110.

APE 1300M1--EXPLOSIVE WASHOUT PLANT



DRAWING INDEX

1321 Receiving Tank
1322 Settling Tank
1323 Coolers
1324 Filters
1325 Catwalk & Ladders
1326 Pump, Centrifugal

NOT ILLUSTRATED

1318 Pelting Section Piping
1319 Vapor Collection Duct
1320 Agitation Tank
1327 67 GPM Centrifugal Pump
1329 Vertical Sump Pump

EXPLOSIVE WASHOUT PLANT
WATER RECLAMATION SYSTEM

AR 700536

Figure 2-111.

Use:

The plant is used to wash explosives out of bombs, projectiles, mines, and warheads, and to reclaim the explosives.

Description:

The plant consists of a hot water generating and circulating system, circulating pumps, a washout tank, a water settling tank, a water circulating tank, hot water heat exchangers, and a water reclamation system.

Difference Between Models:

The original APE 1300 system flaked the recovered explosives. The M1 version pelletizes the recovered explosives.

Tabulated Data:

APE No.	13000000M1
Unit of Issue	System
Installation Data:	
Length	123 ft 8 in.
Width	32 ft
Height	30 ft
Weight	special building

Utilities Required:

110K va, 112/220 vac, 60 Hz, 3 phase; air at 100 psi and 86,000 cubic feet per shift; 10,600 pounds of steam per shift.

Production Capacity:

Depends upon item being processed.

Shipping Data:

Depends on plant configuration.

Associated Equipment:

None.

Kits:

1301E002 KIT, Washout 75MM and 76MM Projectiles
 1301E003 KIT, Washout 90MM Projectiles
 1301E004 KIT, Washout 106MM Projectiles
 1301E005 KIT, Washout 120MM Projectiles
 1301E006 KIT, Washout 155MM Projectiles
 1301E007 KIT, Washout 175MM Projectiles
 1301E008 KIT, Washout 20 pound and 23 Pound Fragmentation Bombs
 1301E009 KIT, Washout 90 Pound Fragmentation Bombs
 1301E010 KIT, Washout 100 Pound General Purpose Bombs

1301E011 KIT, Washout 220 Pound and 260 Pound Fragmentation Bombs
 1301E012 KIT, Washout 240MM and 280MM Projectiles
 1301E013 KIT, Washout 8-Inch Projectiles
 1301E014 KIT, Washout 250 Pound and 500 Pound General Purpose Bombs and 500 Pound MK82 Bombs
 1301E015 KIT, Washout 750 Pound Bombs (Nose End)
 1301E016 KIT, Washout 750 Pound Bombs (Base End)
 1301E017 KIT, Washout 1000 Pound Bombs
 1301E018 KIT, Washout 2000 Pound Bombs
 1301E019 KIT, Washout Guided Missile: M3, M4 and T-34 (Lacrosse)
 1301E020 KIT, Washout Guided Missile: T39E4 and T-45
 1301E021 KIT, Washout 3.5-Inch Rocket Warhead
 1301E022 KIT, Washout M15 Mines
 1312E001 KIT, Separator Tank Paddle
 1313E001 KIT, Modification
 1314E001 KIT, Cooling Tower
 1315E001 KIT, Modify Pump
 1321E001 KIT, Modify Butterfly Valve
 1322E001 KIT, Modify Butterfly Valves

APE 1328--TRAILER, EXPLOSIVE DISPOSAL



Figure 2-112.

Use:

Trailer was designed to safely transport explosive wastes generated in the Explosive Washout Plant, APE 1300, to the burning grounds for disposal.

Description:

Trailer is of a 2 wheel covered design and is towed with a 1-1/2

ton truck. Trailer is equipped with 4 ea 55 gallon barrels that are used to hold explosive materials. An overhead hoist and rail assists operator in loading/unloading the carrier barrels. Trailer is equipped with light and electric brakes.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 13280000
 Unit of Issue Each
 Installation Data:
 Length 16 ft 1 in.
 Width 9 ft 3 in.
 Height 9 ft 3 in.
 Weight 2950 lbs
 Utilities Required:
 A 1-1/2 Ton rated truck w/7
 prong female elect trailer
 connection.
 Production Capacity:
 4 ea 55 gal barrels.

Shipping Data:

Length 16 ft 1 in.
 Width 9 ft 3 in.
 Height 9 ft 3 in.
 Cube 1418 cu ft
 Weight 2950 lbs

Associated Equipment:

Forklift, 1-1/2 Ton Truck.

Kits:

None.

APE 1400--PLANT, WHITE PHOSPHORUS

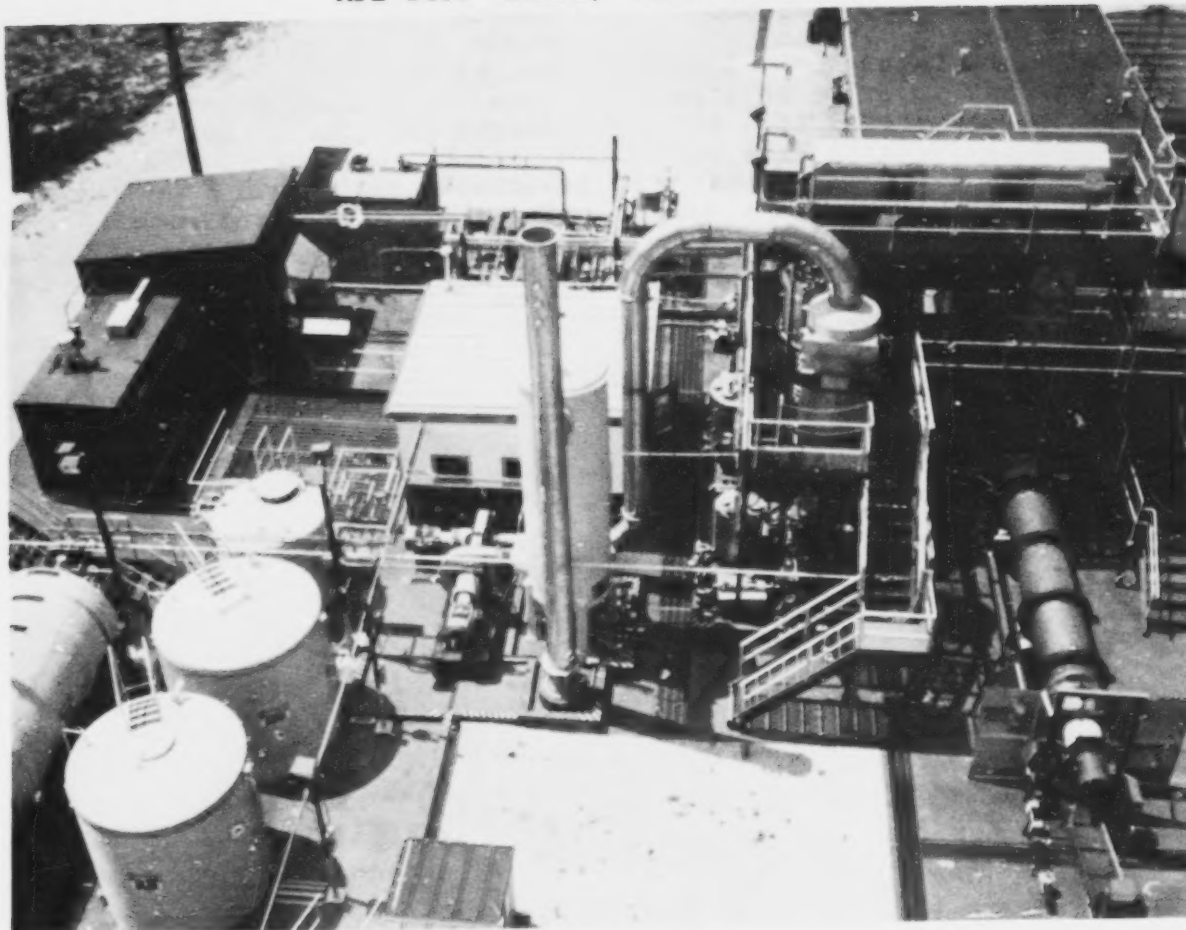


Figure 2-112.1.

Use:

The plant converts obsolete and/reject white phosphorus from chemical munitions to phosphoric acid and reclaims the empty shells and acid for resale.

loop

Description:

The phosphorus to phosphoric acid conversion plant consists of two systems, the feed system and the acid plant system.

Downloaded munitions, (fuze, detonator, and explosives removed)

are placed in a 115 ton hydraulic press for punching to expose the W.P. and then into a converted APE 1236 rotating kiln furnace for burning. The resultant smoke is then pulled out of the furnace.

by a negative pressure closed

ducting system into the acid plant system for conversion to phosphoric acid.

The two systems consist of a 115 ton punch, a converted APE 1236 furnace, hydrator, initial demister-separator, two negative

pressure draft fans, a final demister, water cooling tower, acid cooling heat exchanger, acid filtering unit, acid storage tanks, rail and tanker truck acid loading stations, and an emergency generator in the event of power failure.

The two systems utilize automated controls for maximum efficiency.

Difference Between Models:
Original plant.

Tabulated Data:

APE No. 14000000
Unit of Issue System
Installation Data:
Not applicable

Utilities Required:

400 KVA, 115/220 VAC, 60 Hz 3 Phase; air at 100 psi, draft air at 8000 cfm; 2200 pounds hydraulic pressure; natural gas at 3500 cu. ft. per hour; water at 200 gals per hour.

Production Capacity:

480 pounds of White Phosphorus per hour.

Shipping Data:

Not Applicable

Associated Equipment:

Modified APE 1236 Deactivation Furnace

Kits:

None

APE 1504--DRILL, STUCK SUPPLEMENTARY CHARGE

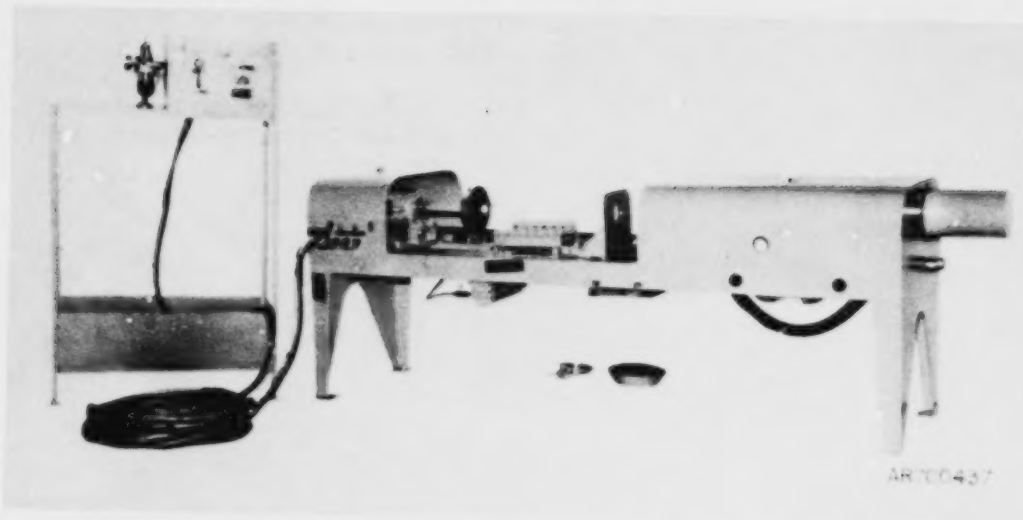


Figure 2-113.

Use:

The stuck supplementary charge drill is used to remove stuck supplementary charges from 155MM, 4.2", 175MM, and 8-Inch projectiles.

Description:

The drill consists of a metal frame, a pneumatic drill, a liner removal assembly, a projectile holding assembly, and a remote control panel with connecting control lines.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 15040000

Unit of Issue Each

Installation Data:

DRILL

Length 116 in.

Width 29 in.

Height 38 in.

Weight 979 lbs

CONTROL PANEL

Length 37 in.

Width 26 in.

Height 61 in.

Weight 160 lbs

Utilities Required:

Air at 90 psi and 20 cfm.

Production Capacity:
Not applicable.

Shipping Data:

DRILL

Length 120 in.
Width 37 in.
Height 49 in.
Cube 126 cu ft
Weight 1603 lbs

CONTROL PANEL

Length 43 in.
Width 33 in.
Height 68 in.
Cube 56 cu ft
Weight 536 lbs

Associated Equipment:

APE 1028, 2042, 2043.

Kits:

1504E001 Kit, 4.2 inch Mortar
HE, M329, M329A1 and M329B1
Base Cone Adapter

1504E002 Kit, 4.2 inch Mortar
HE, M329A2 Base Cone Adapter

APE 1507--MACHINE, ABRASIVE BLAST CLEANING

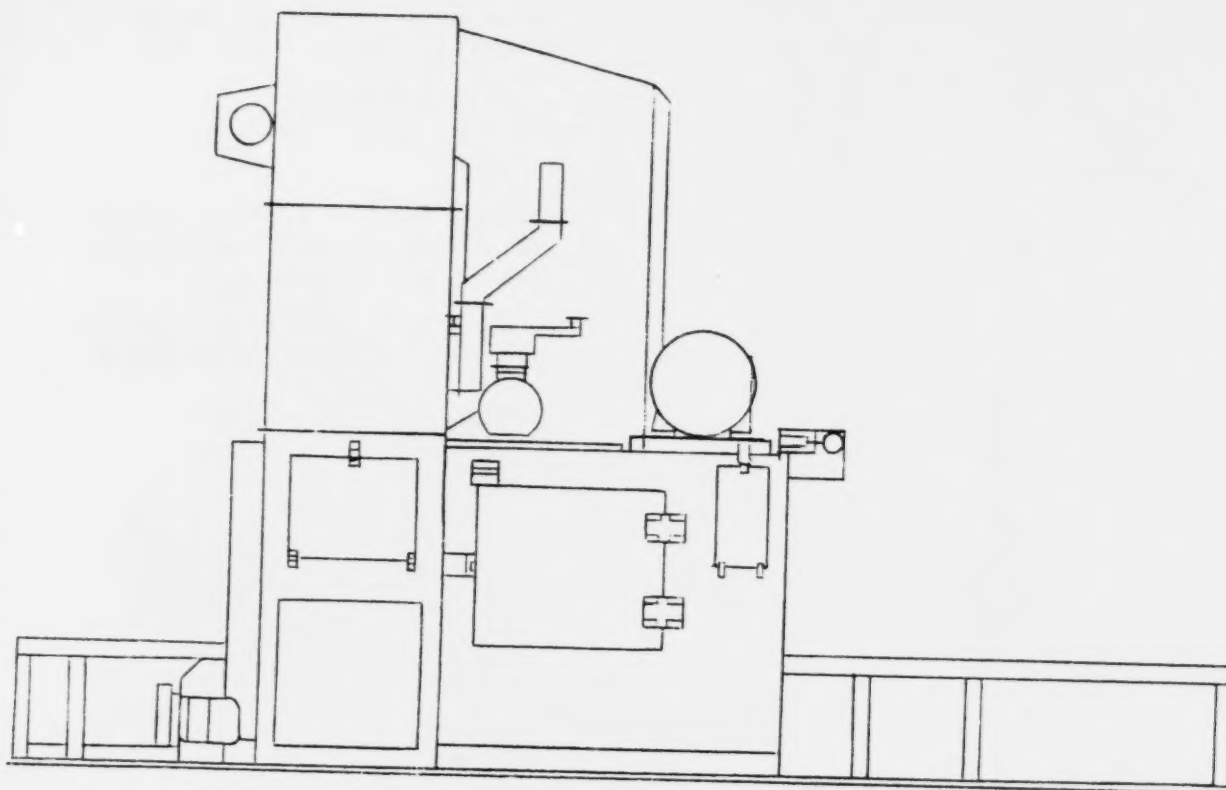


Figure 2-114.1.

Use:

The abrasive blast cleaning machine is used to remove rust, corrosion, and oxidized paint from unfuzed projectiles and cylindrical objects. Projectiles range in size from 105MM through 8 inch, and larger cylindrical objects up to 750 lb. bombs.

Description:

The machine consists of a blast cabinet, skew roll conveyor, and dust collector

Difference Between Models:
Original design.

Tabulated Data:

APE No. 15070000
Unit of Issue Each

Installation Data:

MACHINE

Length 21 ft.
Width 6 ft.
Height 12 ft. 8 in.
Weight 10,000 lbs.

DUST COLLECTOR

Length 8 ft.
Width 4 ft.
Height 11 ft. 8 in.
Weight 3,030 lbs.

Utilities Required:

208/440 vac, 3 phase, 60 Hz,
40/20 amp.

Production Capacity:

Not applicable

Shipping Data:

MACHINE

Length 24 ft.
Width 8 ft.
Height 14 ft.
Cube 2,080 cu. ft.
Weight 12,000 lbs.

DUST COLLECTOR

Length 10 ft.
Width 6 ft.
Height 14 ft.
Cube 840 cu. ft.
Weight 3,500 lbs.

Associated Equipment:

None.

Kits:

None.

APE 1510--TRANSFER CONVEYOR AND GLOVE BOX



Figure 2-114.2.

Use:
transfer

The Transfer Conveyor and Glove Box are designed for use in maintenance operations on chemical agent munitions. They provide a safe and effective means to remove munitions from the abrasive cleaning room (ACR); a glove box for inspection of the munition; and a means of transfer back into the ACR if necessary.

Description:

The Transfer Conveyor and Glove Box consists of two basic components. A light weight

inspection glove box and a conveyor system.

(1) The inspection glove box consists of a frame assembly, a stainless steel drip tank, four plexiglass windows with glove ports in two windows, a hinged door in one window and a mechanical cam/ramp mounted on the floor of the box. The box has rubber gloves attached for use by the operator in manipulating the items being inspected.

(2) The transfer conveyor system consists of a frame assembly that

has a commercially available roller conveyor mounted on the top side. The transfer carriage moves along the frame assembly by means of rack gears and an electric motor. Essentially there is movement in the x-y axis.

Difference Between Models:
Original design

Tabulated Data:
APE No. 15100000
Unit of Issue Each

Installation Data:

Length 100 in.
Width 98 in.
Height 59 in.
Cube 335 cu. ft.
Weight 1500 lbs.

Utilities Required:
208/230/460 volts, 3 phase,
60 Hz

Production Capacity:
Not applicable

Associated Equipment:

APE 1507
M10 Alarm System

Kits:
None

APE 1901--TANK, IMMERSION



Figure 2-115.

Use:

The immersion tank is used to condition samples of ammunition items in water prior to surveillance function testing.

Description:

The tank is circular and mounted on a stand with four legs. Inside dimensions of the tank are 34-3/4 inches in diameter and 21-3/4

inches deep. A 3/4-inch male boiler drain valve is installed in the bottom of the tank. A foot operated tire pump is included to pressurize the tank. The tank has a cover that is held in place by eight T-screws.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19010000
 Unit of Issue Each
 Installation Data:
 Length 44-1/2 in.
 Width 38-3/4 in.
 Height 38-3/4 in.
 Weight 350 lbs
 Utilities Required:
 Water at 70F 110F.
 Production Capacity:
 Not applicable.

Shipping Data:

Length 50 in.
 Width 44 in.
 Height 44 in.
 Cube 51.6 cu ft
 Weight 424 lbs

Associated Equipment:

None

Kits:

1901E001 KIT, Air Pressur-
 ization

APE 1902M2--DEVICE, HOLDING, FUNCTION TEST

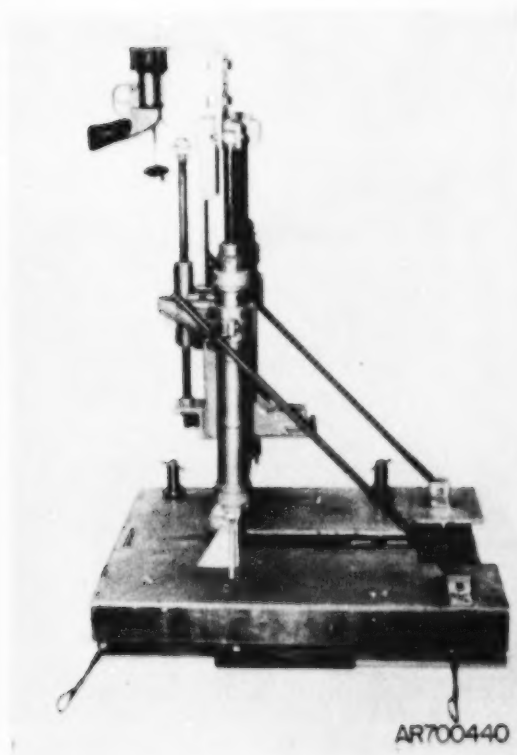


Figure 2-116.

Use:

The holding device is used to hold M1903, M1, M14 and M16 rifles; M1 and M2 carbines; M79 grenade launchers, and the AM-M8 pyrotechnic pistol when surveillance function testing signals, simulators, and photoflash cartridges launched from these weapons.

Description:

The device consists of a base that is 36 inches long, 27 inches wide, and 4 inches high, that is made of 1/2-inch aluminum. Two 16-inch stroke air cylinders are attached to the base. Two adjusting arms are attached to the base and air cylinders to hold the weapons at the proper firing angle.

Difference Between Models:
The APE 1902M1 has kit 1902E005
attached. APE 1902M2 has kit
1902E007 attached.

Tabulated Data:

APE No. 19020000M2
Unit of Issue Each
Installation Data:
Length 36 in.
Width 27 in.
Height 50-3/4 in.
Weight 300 lbs
Utilities Required:
None.
Production Capacity:
Not applicable.

Shipping Data:

Length 42 in.
Width 33 in.
Height 57 in.

Cube 25.7 cu ft
Weight 351 lbs

Associated Equipment:
APE 1937.

Kits:

1902E001 KIT, Mount M1 or M14
Rifle
1902E002 KIT, Mount M1 or M2
Carbine
1902E003 KIT, Mount M16 Rifle
1902E004 KIT, Mount M79 Grenade
Launcher
1902E005 KIT, Modify APE 1902
to APE 1902M1
1902E006 KIT, Holding Device,
M203 Grenade Launcher
1902E007 KIT, Modification
Elevation Indicator
Quadrant. Modifica-
tion changes machine
from APE 1902M1 to
1902M2

APE 1903--TABLE, TESTING, FUNCTION

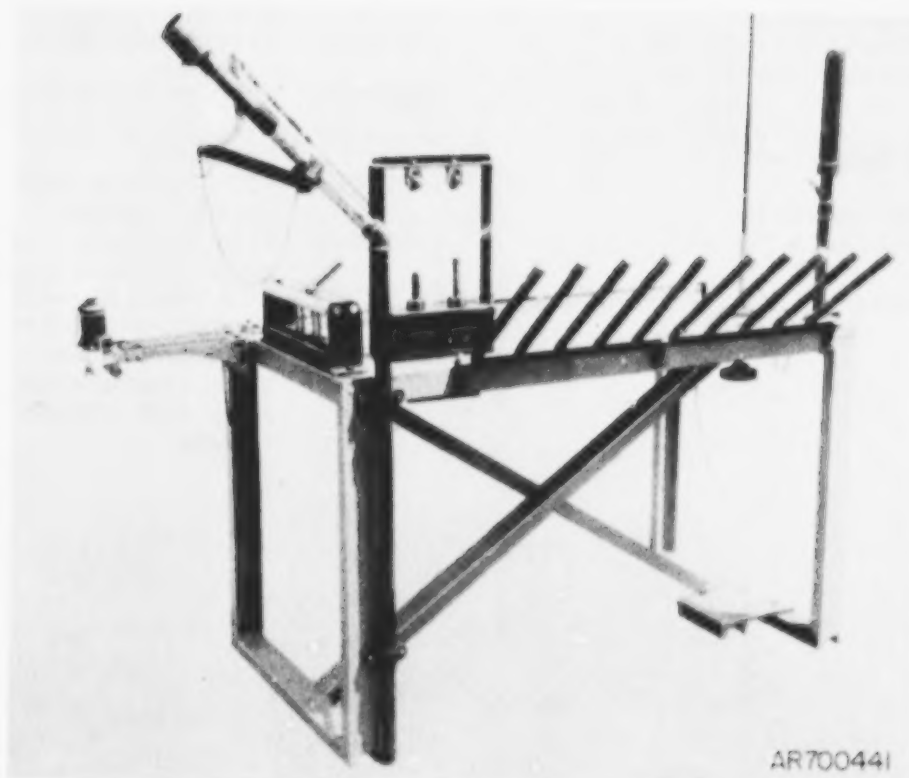


Figure 2-117.

Use:

The testing table is used as a standard piece of equipment for surveillance function testing of several ammunition items.

Description:

The table is constructed of steel with heavy legs and crossmembers. Several holding devices and remote control actuators are mounted on the table.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19030000
Unit of Issue Each

Installation Data:

Length 56 in.
Width 30 in.
Height 36 in.
Weight 800 lbs

Utilities Required:
None.

Production Capacity:
Not applicable.

Shipping Data:

Length 65 in.
Width 36 in.
Height 44 in.
Cube 56.2 cu ft
Weight 1038 lbs

Associated Equipment:
APE 1907, 1926, 1937.

Kits:

1903E001 KIT, Function Test M49
and M49A1 Trip Flares

1903E002 KIT, Function Test M6,
M10, M204, M205, M206
and M213 Hand Grenade
Fuzes
1903E003 KIT, Remove Cap from
M49 and M49A1 Trip
Flares
1903E004 KIT, Function Test MK1
Illuminating Grenade
1903E005 KIT, Function Test
Nonelectric Blasting
Caps
1903E006 Fixture, Holding, Trip
Flare

APE 1904--CHAMBER, TEMPERATURE TEST

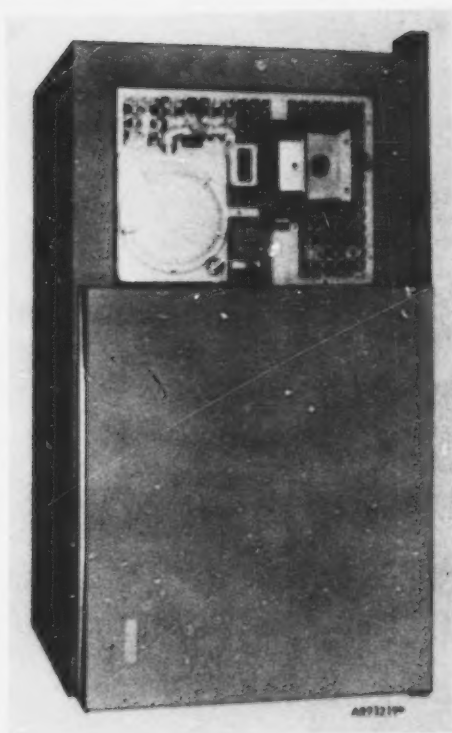


Figure 2-118.

Use:

For environmental conditioning of items at controlled temperatures for surveillance function tests.

Description:

Not available.

Difference Between Models:

Original design. This item is being replaced by APE 1938.

Tabulated Data:

APE No. 19040000

Unit of Issue Each

Installation Data:

Length 61 in.

Width 29 in.

Height 34 in.

Weight 562 lbs

Utilities Required:

115 volts, 60 cycle, AC,
single phase.

Production Capacity:

Not applicable.

Shipping Data:

Length not available

Width not available

Height not available

Cube 34.8 cu ft

Weight not available

Associated Equipment:

None.

Kits:

None.

APE 1905--SHELTER, SURVEILLANCE TEST

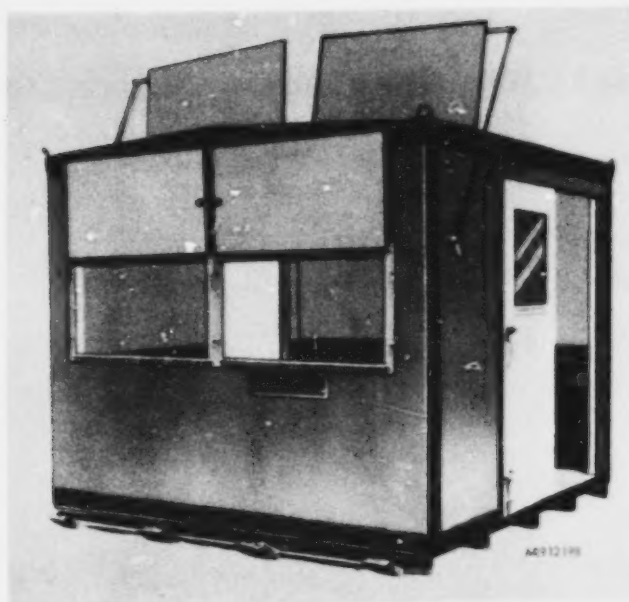


Figure 2-119.

Use:

To provide protection for personnel performing surveillance function tests of various items. This portable shelter has accessories for observing tests and for remote control actuation thereof. Shelter has bullet proof glass.

Description:

Not available.

Difference Between Models:

Original design. This item is being replaced by APE 1937

Tabulated Data:

APE No.	19050000
Unit of Issue	Each
Installation Data:	
Length	9.5 ft
Width	9.5 ft
Height	8.0 ft
Weight	5,750 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube 783.1 cu ft
 Weight not available

Associated Equipment:

APE 1920, 1926.

Kits:

1905E001 Periscope
 1905E002 Stepstool
 1905E003 Periscope Guard

APE 1906--TESTER, FUZE, GRENADE IGNITING

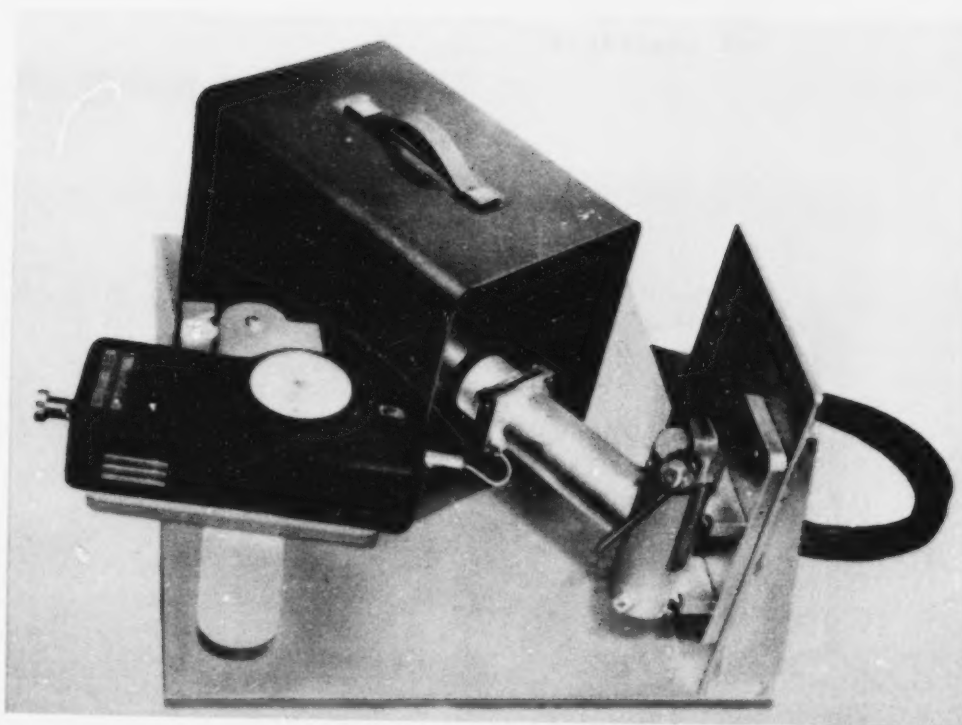


Figure 2-120.

Use:

The grenade igniting fuze tester is used to surveillance function test M201A1 grenade fuzes.

Description:

The tester consists of an electric timer, a small telephone transmitter, and a photoelectric cell mounted in a metal case. Fuze holders and a mechanical force gage are included with the tester.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19060000
Unit of Issue Each

Installation Data:

Length 23 in.
Width 18 in.
Height 13 in.
Weight 100 lbs

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:
Not applicable.

Cube 5.2 cu ft
Weight 132 lbs

Shipping Data:

Length 25 in.
Width 20 in.
Height 18 in.

Associated Equipment:
None.

Kits:

1906E001 Tube, Flash Vert
1906E002 Tube, Flash Horz

APE 1907--DEVICE, PRESSURE TESTING

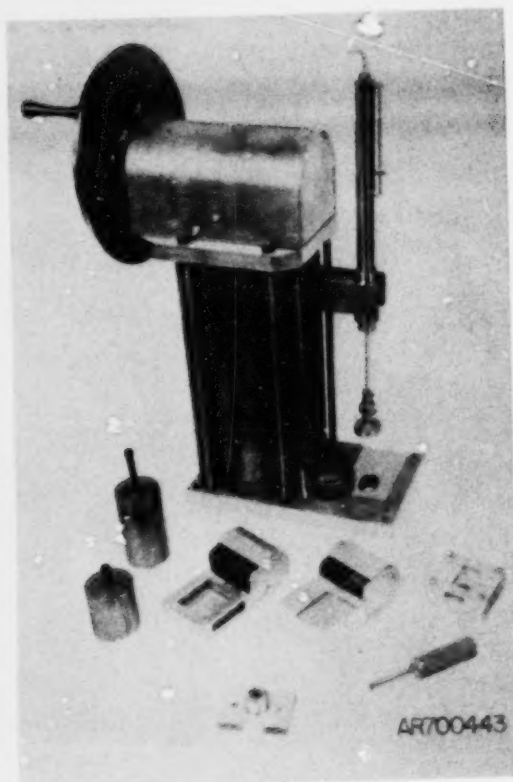


Figure 2-121.

Use:

The pressure testing device is used to measure force when pushing or pulling during surveillance function testing.

Description:

The pressure testing device is a hand powered geared system that applies pressure to a calibrated spring gage to indicate the force being exerted.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19070000
Unit of Issue Each

Installation Data:

Length 12 in.
Width 11 in.
Height 24-1/2 in.
Weight 90 lbs

Utilities Required:
None.

Production Capacity:
Not applicable.

Shipping Data:

Length 16 in.
Width 16 in.
Height 30 in.
Cube 3.1 cu ft
Weight 105 lbs

Associated Equipment:
None.

Kits:

1907E001 KIT, Gage, Push-Pull,
0- to 40-Pound with
holding chuck and
swivel assy
1907E002 KIT, Function Test
M6A1 Fuze, With Cock-
ing Device

1907E003 KIT, Firing Device,
Demolition, Pressure
Release Type, M5
1907E004 KIT, Firing Device,
Demolition, Release
Type, M1
1907E005 KIT, Firing Device,
Demolition, Pressure
Type, M1
1907E006 KIT, 3- and 5-Pound
Weights for Pressure
Testing Firing Devices
1907E007 KIT, Function Test
M605 Mine Fuze
1907E008 KIT, Function Test
Firing Device, Pull-
Release Type, M3

APE 1908--DEVICE, MEASURING, ALTITUDE AND DRIFT

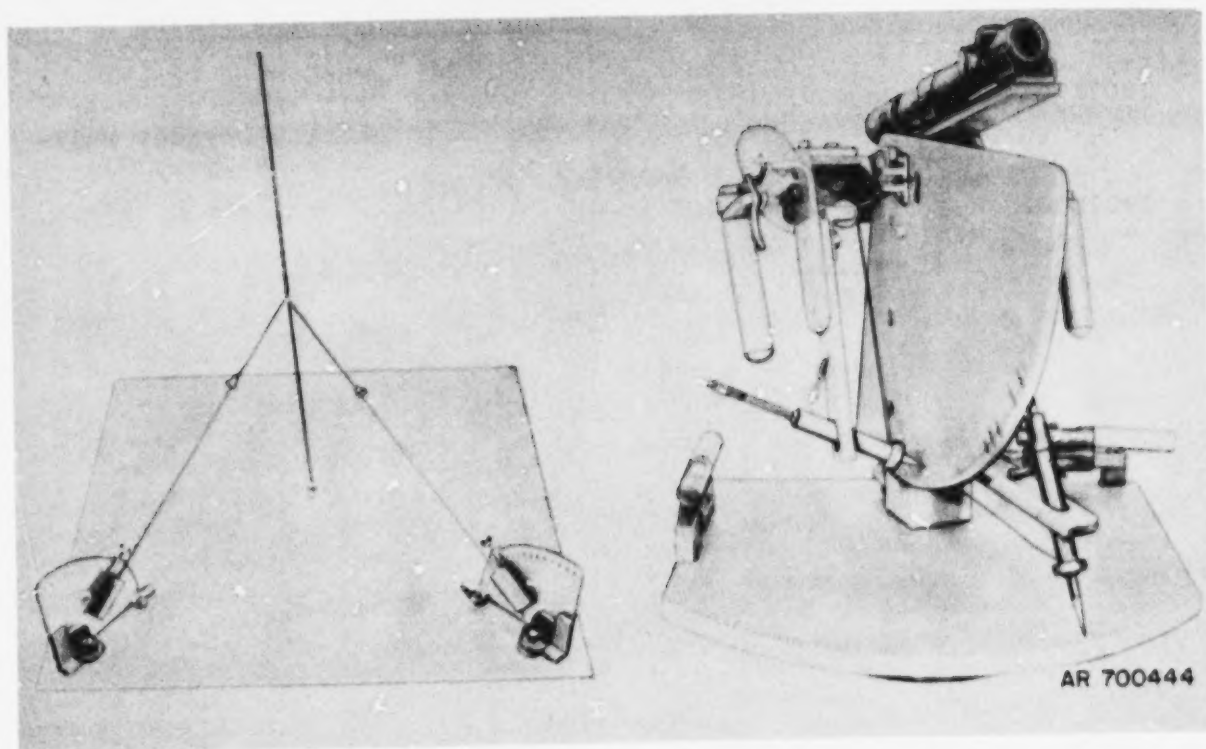


Figure 2-122.

Use:

The altitude and drift measuring device is used to record the angle and the degree of elevation of signals, simulators, and M48 surface trip parachute flares during surveillance function testing.

Description:

The device consists of three pieces of equipment. A plotting board is a scale model of the firing range with two quadrant controls, two indicating rods, and a scribe rod. Two sighting devices with stands are provided to follow the item being tested and mark the position that it functions.

Tabulated Data:

APE No. 19080000

Unit of Issue Each

Installation Data:

SIGHTING DEVICE

Length 28 in.

Width 28 in.

Height 56 in.

Weight 550 lbs

PLOTTING BOARD

Length 30 in.

Width 24 in.

Height 51 in.

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 36 in.

Width 30 in.

Height 54 in.

Cube 34.3 cu ft

Weight 605 lbs

Associated Equipment:

None.

Kits:

1908E001 Additional Quadrant to
Measure Angle of De-
parture from vertical.

APE 1909--FIXTURE, HOLDING AND FUZE BREAKOFF

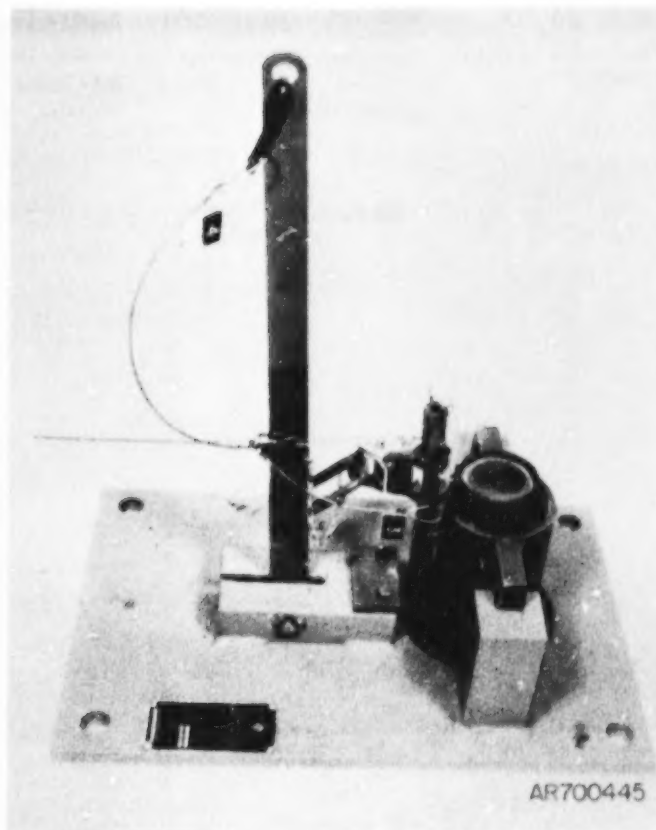


Figure 2-123.

Use:

The holding and fuze breakoff fixture is used to hold the M2 series mine or the M48 trip flare in proper position for surveillance function testing. It can also break off the M6A1 fuze if the mine or flare fails to eject its projectile.

Description:

The fixture consists of a metal base with a holding cup for the mine or flare. A breakoff device is in position around the fuze when the mine or flare is in the fixture. A lanyard is included to function the munition or break off the fuze.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19090000

Unit of Issue Each

Installation Data:

Length 18-1/4 in.

Width 12-1/4 in.

Height 20-1/8 in.

Weight 70 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 20 in.

Width 15 in.

Height 23 in.

Cube 2.5 cu ft

Weight 84 lbs

Associated Equipment:

None.

Kits:

1909E001 KIT, Breakoff Fuze on
M48 Trip Flares

1909E002 KIT, Breakoff Fuze on
M2 Mines.

APE 1916M1--OVEN, PRECONDITIONING

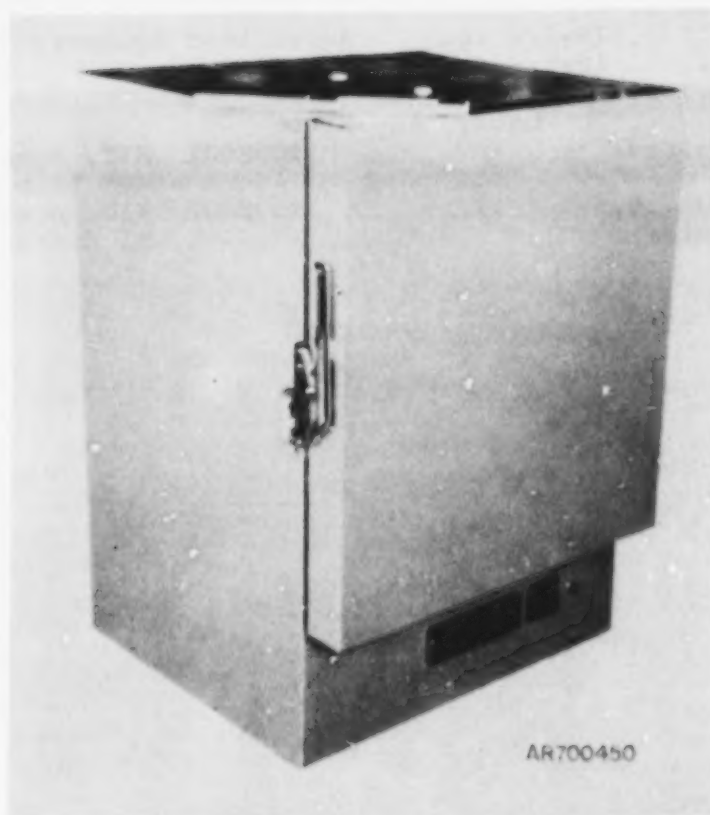


Figure 2-124.

Use:

The preconditioning oven is used to condition various items at a controlled temperature for a specified length of time prior to surveillance function testing.

Description:

The oven is a radiant heating type with a maximum temperature of 200 centigrade. It is complete with four shelves, thermometer holder, adjustable air vent, neon pilot light, four neoprene feet and a

three wire grounded cord with plug. The inside dimensions of the oven are 18 inches wide, 20 inches high, and 18 inches deep.

Difference Between Models:

The M1 model is operated by remote control and has additional safety controls against overheating.

Tabulated Data:

APE No. 19160000M1
Unit of Issue Each

Installation Data:

Length 24 in.
 Width 23 in.
 Height 30 in.
 Weight 105 lbs

Utilities Required:

115/230 vac, 50 or 60 Hz,
 single phase.

Production Capacity:

Not applicable.

Shipping Data:

Length 30 in.
 Width 30 in.
 Height 36 in.
 Cube 18.75 cu ft
 Weight 268 lbs

Associated Equipment:

None.

Kits:

None.

APE 1918M1--DEVICE, HOLDING, HAND SIGNAL

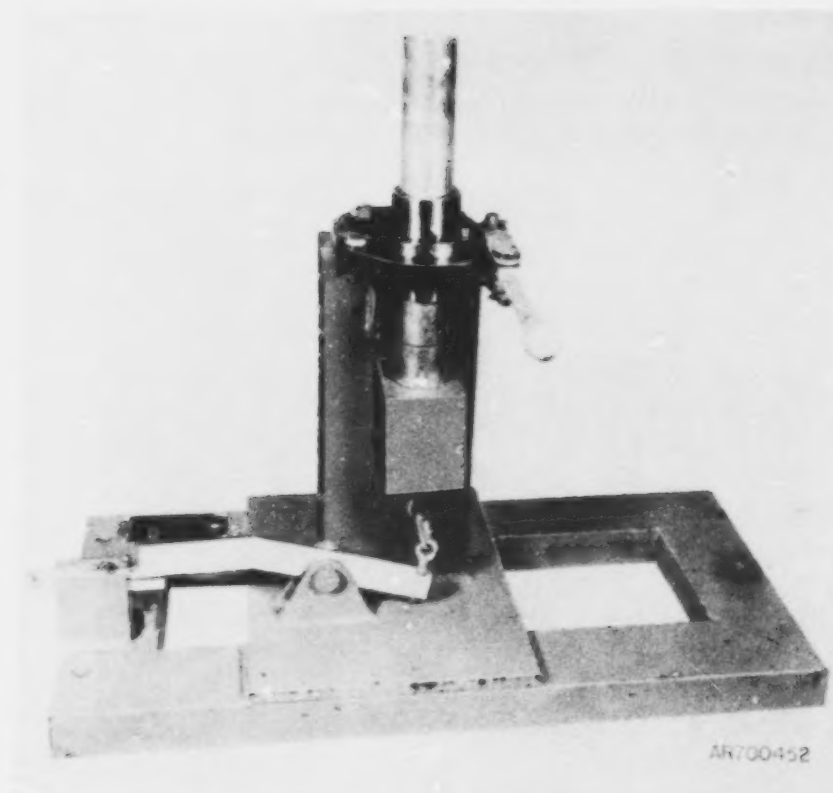


Figure 2-125.

Use:

The hand signal holding device is used to function test M125, M126, M127, and M131 hand held signals.

Description:

The device consists of a metal base, a short mast with locking vise jaws to hold the signal being tested, and a firing assembly to actuate the signal.

Difference Between Models:

The APE 1918M1 has removable clamping jaws to accommodate accessory kits E001 and E002. The APE 1918 holding jaws are welded to the clamping jaws and will not accommodate the M131 signals.

Tabulated Data:

APE No. 19180000M1
Unit of Issue Each

Installation Data:

Length 24 in.
 Width 12 in.
 Height 15-3/4 in.
 Weight 70 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 30 in.
 Width 18 in.

Height 20 in.
 Cube 3.5 cu ft
 Weight 86 lbs

Associated Equipment:

1908, 1933 and 1937.

Kits:

1918E001 KIT, Test M125, M126,
 and M127 Signals
 1918E002 KIT, Test M131 Signals
 1918E003 KIT, Modification,
 Cocking Device

APE 1919--TOOL, CLOSING PLUG REMOVAL

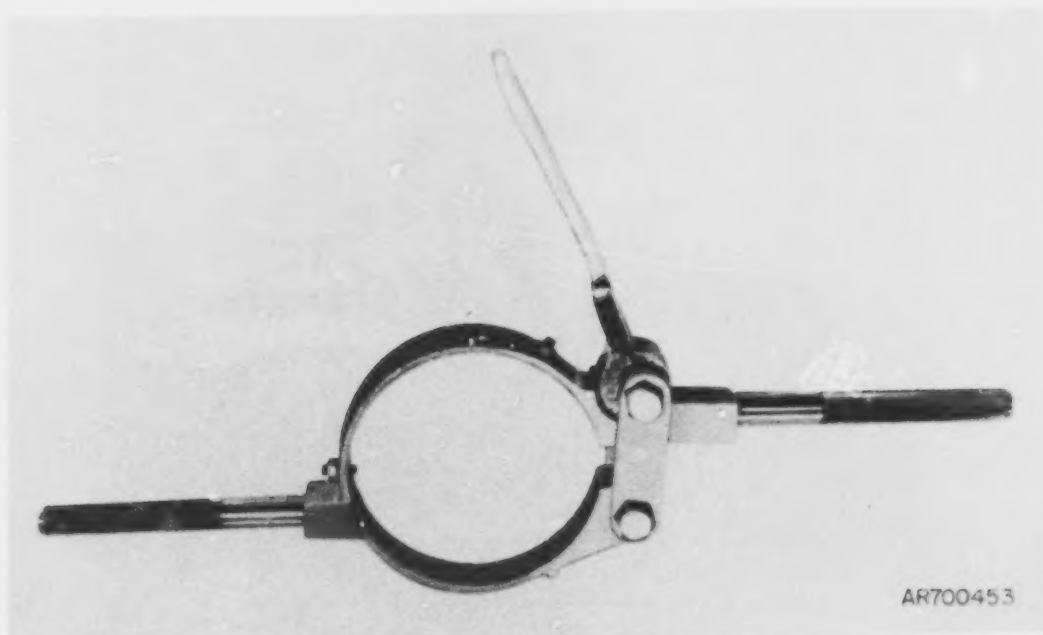


Figure 2-126.

Use:

The closing plug removal tool is used to remove M2E2, M5, M6 and M7 closing plugs from 120MM cartridge cases for propellant inspection.

2-260

Description:

The tool is a compression type wrench with two handles.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 19190000

Unit of Issue Each

Installation Data:

Length 21 in.

Width 7 in.

Height 3 in.

Weight 7 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 17 in.

Width 8 in.

Height 4 in.

Cube 544 cu in.

Weight 8 lbs

Associated Equipment:

APE 1003M1 w/KIT 1003E005 for

Machine Removal of Plugs.

Kits:

None.

APE 1920--SHIELD, OPERATIONAL

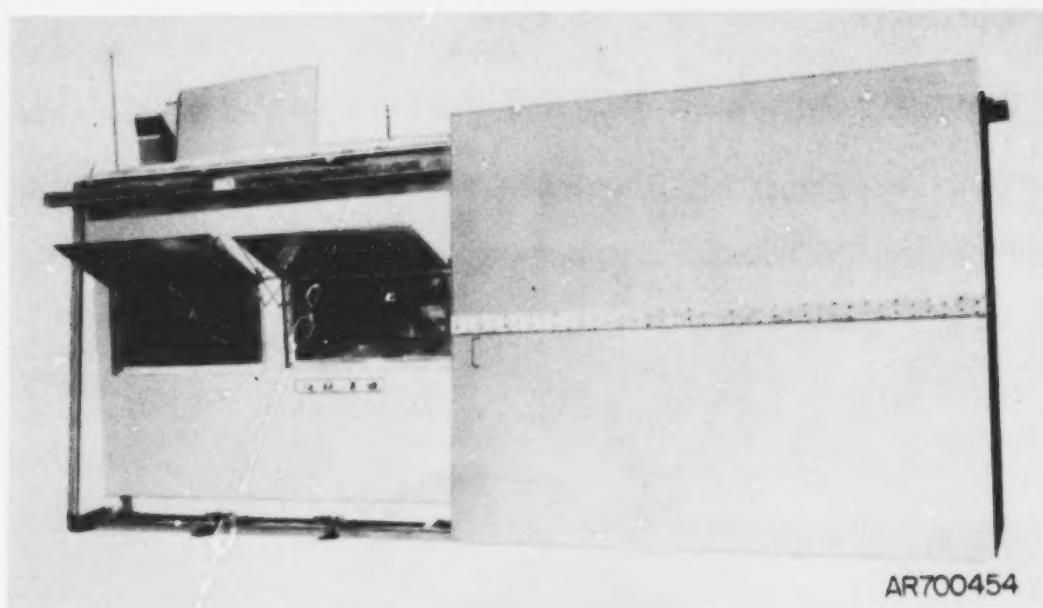


Figure 2-127.

Use:

The operational shield is used to provide additional protection for operators inside the shelter, APE 1905 or 1937, when function testing mines and hand grenades.

Description:

The shield consists of two A-frames connected by tracks on top and at the bottom. The metal shield is suspended from the upper track by two 4-wheel trolley hangers. It mounts in front of the APE 1905 or 1937.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19200000

Unit of Issue Each

Installation Data:

Length 20 ft

Width 24 in.

Height 7 ft 7 in.

Weight 1585 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 130 in.

Width 59 in.

Height 42 in.

Cube 202 cu ft

Weight 2200 lbs

Associated Equipment:

APE 1905, 1937.

Kits:

None.

APE 1921M2--DEVICE, PHOTOFLASH CARTRIDGE TEST

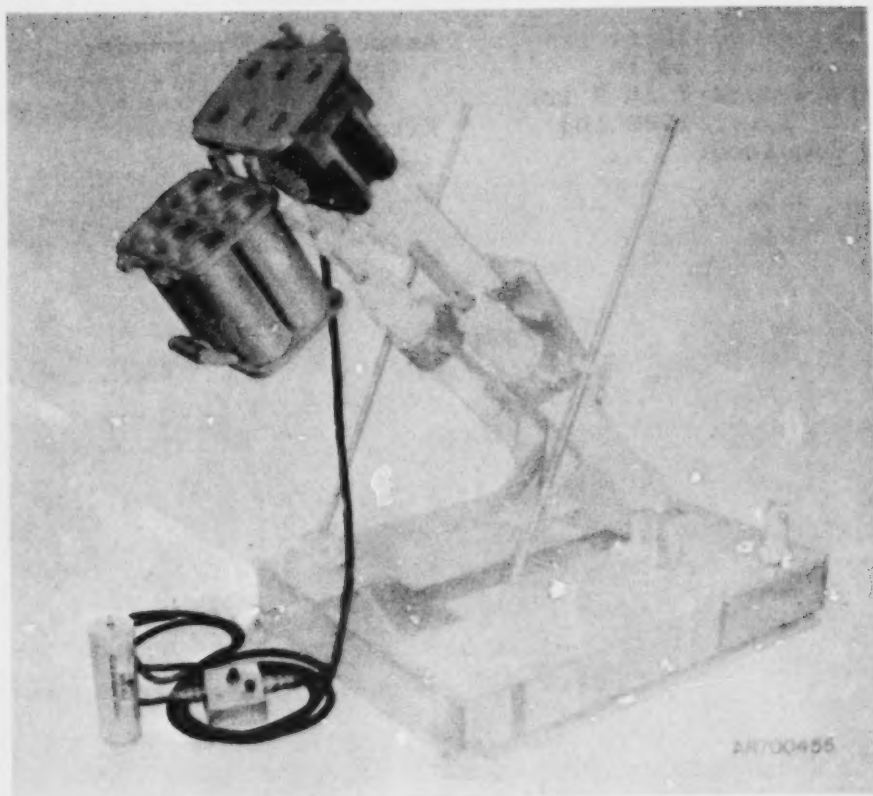


Figure 2-128.

Use:

The photoflash cartridge test kit is used to function test M112, M112A1, M121, M123A1, and M124 photoflash cartridges.

Description:

The equipment consists of a six barrel cartridge holder, six inserts for the smaller cartridges, a firing cover, an intervalometer, connecting cables, and a battery.

Difference Between Models:

The 1921M2 model has an additional pigtail electrical cable.

Tabulated Data:

APE No. 19210000M2

Unit of Issue Each

Installation Data:

Length 12 in.

Width 12 in.

Height 17 in.

Weight 70 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 15 in.

Width 15 in.

Height 20 in.

Cube 2.6 cu ft

Weight 110 lbs

Associated Equipment:

APE 1902M1, APE 1902M2.

Kits:

1921E001 KIT, Test M112,
M112A1, and M121 Pho-
toflash Cartridges

APE 1922M1--LAUNCHER, PNEUMATIC, GRENADE

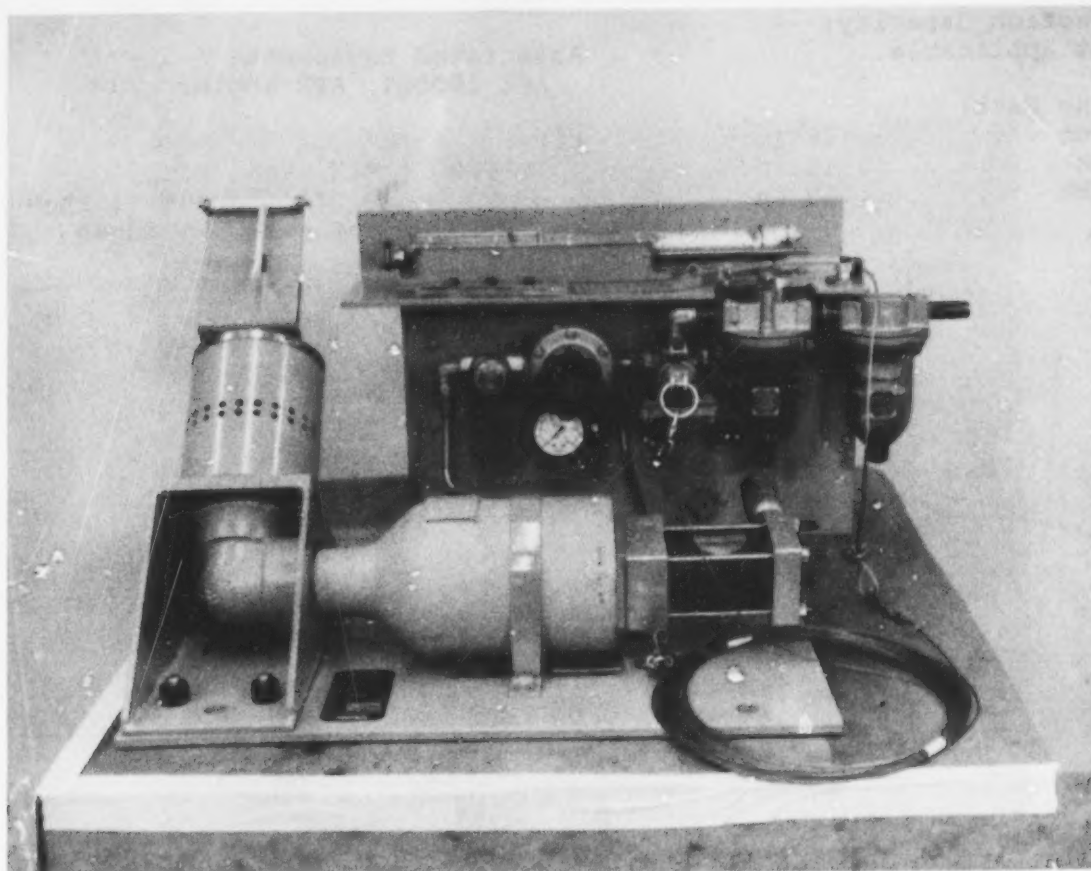


Figure 2-129.

Use:

The pneumatic grenade launcher is used to hold and launch hand grenades during surveillance function testing. It also records the force in pounds used to remove the safety pull rings from the grenades.

Description:

The launcher consists of a frame, an accumulator, an air valve, an air regulator, a quick release valve. Holding cups for the grenades are ordered as kits.

Difference Between Models:

The APE 1922M1 accommodates chemical grenades while the APE 1922 does not.

Tabulated Data:

APE No. 19220000M1
Unit of Issue Each
Installation Data:

Length 27 in.
Width 25 in.
Height 14-1/2 in.
Weight 173 lbs

Utilities Required:

Air at 85 to 100 psi.

Production Capacity:

Not applicable.

Shipping Data:

Length 33 in.
Width 30 in.
Height 18 in.
Cube 6 cu. ft.
Weight 250 lbs.

Associated Equipment:

None.

Kits:

1922E001 KIT, Function Test MK2
Grenades
1922E002 KIT, Function Test M26
Grenades
1922E005 KIT, Function Test M33
M59, M67, and M68
Grenades

1922E006 KIT, Static Test
M26A1, M33A1, M57,
M59, and M68
Grenades
1922E007 KIT, Function Test
M25 Grenades
1922E008 KIT, Function Test,
MK3A2 Grenade
1922E009 KIT, Function Test,
M47 & M48 Grenade
1922E010 KIT, Function Test,
M34 Grenades
1922E011 KIT, Function Test,
M6, M7, M8, M14,
M15 and M18
Grenades

APE 1923 -- COMBINATION GUN MOUNT FOR TRACER
TESTING SMALL ARMS AMMUNITION

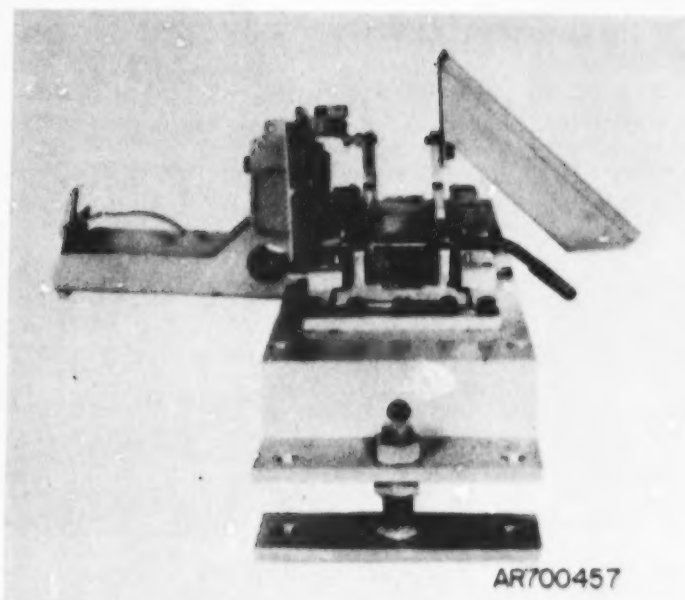


Figure 2-130.

Use:

The combination gun mount is used to trace test small arms tracer ammunition and function test the 64MM projectile.

Description:

The gun mount is constructed of metal and is to be mounted on a concrete base. It has oil buffers to absorb the weapon recoil.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19230000

Unit of Issue Each

Installation Data:

Length 39 in.

Width 29 in.

Height 14 in.

Weight 200 lbs

Utilities Required:

115 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length 50 in.
 Width 30 in.
 Height 17 in.
 Cube 15 cu ft
 Weight 534 lbs

Associated Equipment:

APE 1963.

Kits:

1923E001 KIT, Mount Cal .30 Machine Gun, M37
 1923E002 KIT, For Cal .50 Machine Gun, M2
 1923E003 KIT, Mount 7.62MM Machine Gun, M60
 1923E004 KIT, Mount Cal .50 Spotting Rifle, M8C
 1923E005 KIT, Mount Cal .30 Carbine, M1 or M2

1923E006 KIT, Graze Impact Table

1923E010 KIT, Mount 7.62MM Machine Gun M240

1923E011 KIT, Mount 7.62MM Machine Gun M219

1923E012 KIT, Mount 7.62MM Machine Gun M134

1923E013 KIT, Function Test 64MM Projectile (use with E016)

1923E014 Power Supply for Kits E011 and E015

1923E015 KIT, Mount Cal .50 Machine Gun

1923E016 KIT Function Testing, 5.56MM, M16A1 Rifle

APE 1925M1--DISASSEMBLY EQUIPMENT 155MM: M118 & 4.2 INCH: M335

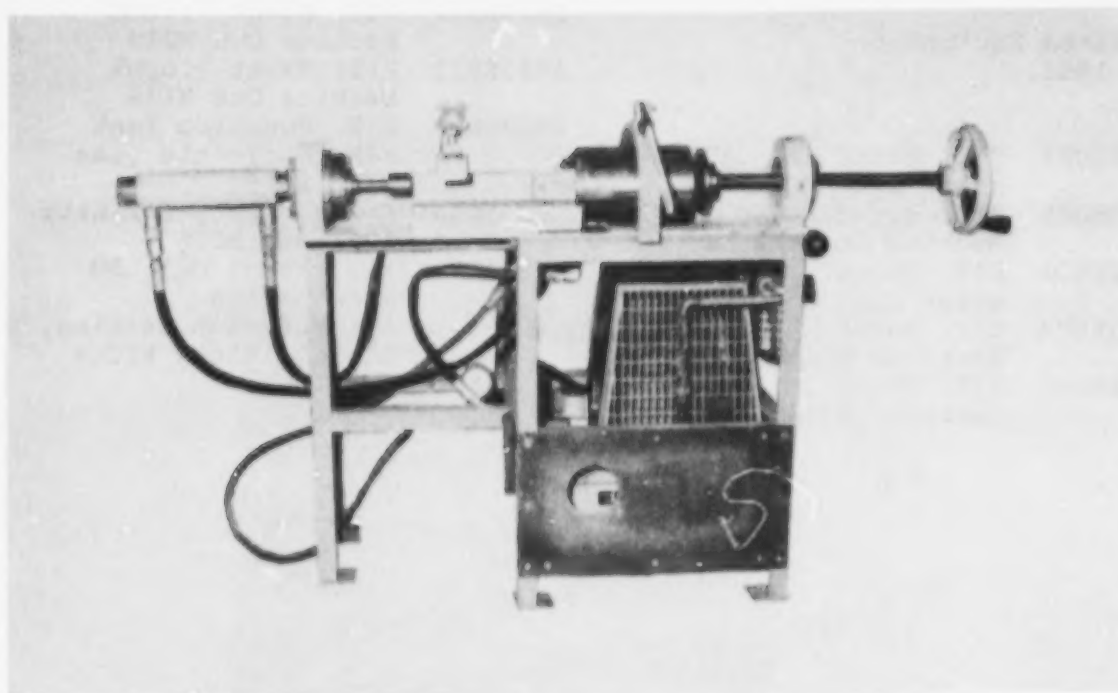


Figure 2-131.

Use:

The equipment is used to push the base from the 155MM: M118 illuminating projectile and 4.2 inch mortar allowing removal of the parachute and illuminating canister for renovation or inspection.

Description:

The equipment consists of a worktable with a projectile holding device, a hydraulic ram, a ram extension, and a power driven hydraulic pump.

Difference Between Models:

M1 has an electric motor driven hydraulic pump.

Tabulated Data:

APE No. 19250000M1

Unit of Issue Each

Installation Data:

Length 38 in.

Width 24 in.

Height 38 in.

Weight 340 lbs

Utilities Required:

110 vac, 60 Hz, single phase.

Production Capacity:

Not applicable.

Shipping Data:

Length 48
Width 30 in.
Height 48
Cube 40 cu ft
Weight 410 lbs

Associated Equipment:

None.

Kits:

None.

APE 1926--DEVICE, LANYARD QUICK RELEASE

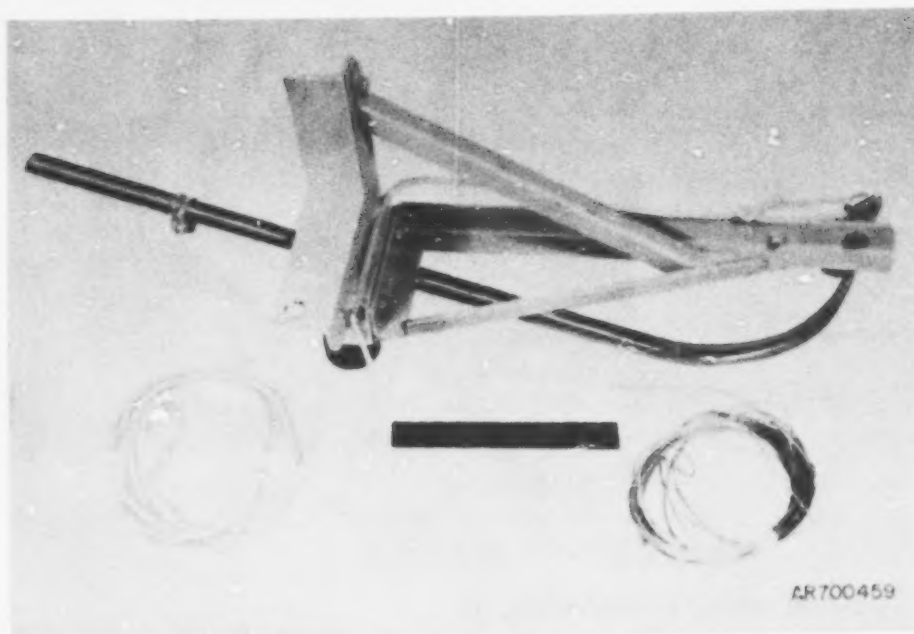


Figure 2-132.

Use:

The lanyard quick release device is used to function test M117, M110, M118 and M119 simulators.

Description:

The device consists of a frame with a spring loaded lever, a pulley assembly, and a lanyard.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19260000

Unit of Issue Each

Installation Data:

Length 11 in.

Width 9-1/2 in.

Height 27 in.

Weight 5-1/4 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 14 in.

Width 11 in.

Height 32 in.

Cube 3 cu ft

Weight 15 lbs

Associated Equipment:

APE 1903, 1905, 1937.

Kits:

None.

APE 1928--EQUIPMENT, MORTAR COMPONENT TEST

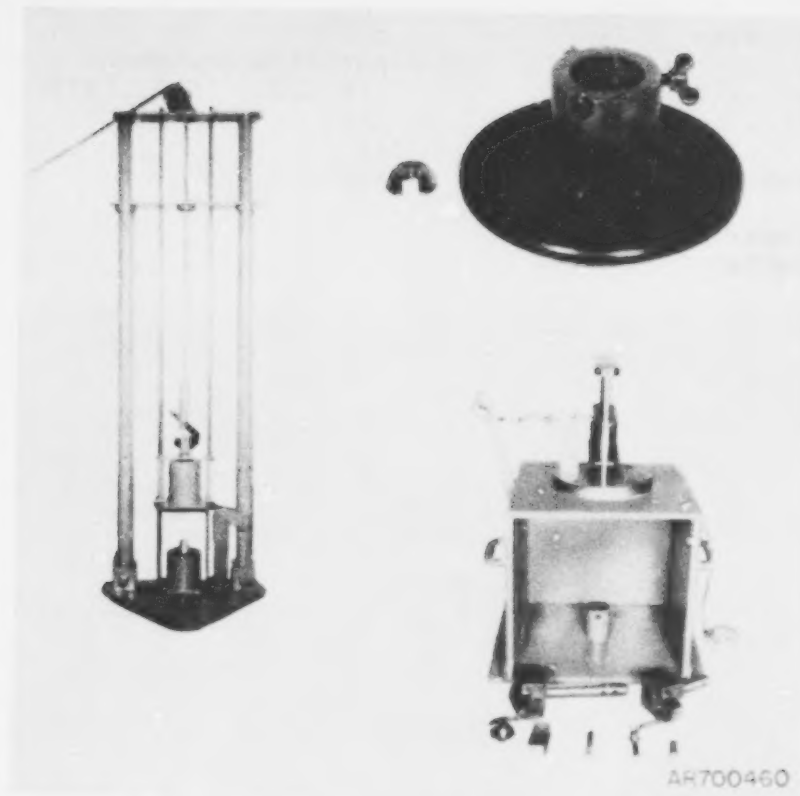


Figure 2-133.

Use:

The mortar component test equipment is used to function test 60MM and 81MM mortar fuzes and ignition assemblies.

Description:

The test equipment consists of three items: a fuze firing stand, an ignition assembly firing stand, and a fuze holder assembly. The

fuze firing stand is a drop tower with a drop weight, drop weight carrier, and fuze firing chamber. The ignition assembly firing stand consists of an ignition assembly firing chamber and a firing pin assembly. The fuze holder assembly is a holding device constructed of metal.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19280000

Unit of Issue Each

Installation Data:

FUZE FIRING STAND

Length 30 in.

Width 21 in.

Height 95 in.

Weight 450 lbs

IGNITION ASSEMBLY

FIRING STAND

Length 18 in.

Width 15 in.

Height 25-1/4 in.

Weight 201 lbs

FUZE HOLDER ASSEMBLY

Length 8 in.

Width 8 in.

Height 4 in.

Weight 10 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 112 in.

Width 37 in.

Height 35 in.

Cube 84 cu ft

Weight 1263 lbs

Associated Equipment:

None.

Kits:

1928E001 KIT, Fuze Firing Stand

1928E002 KIT, Ignition Assembly
Firing Stand1928E004 KIT, Fuze Holder As-
sembly

APE 1931--TESTER, PERCUSSION PRIMER

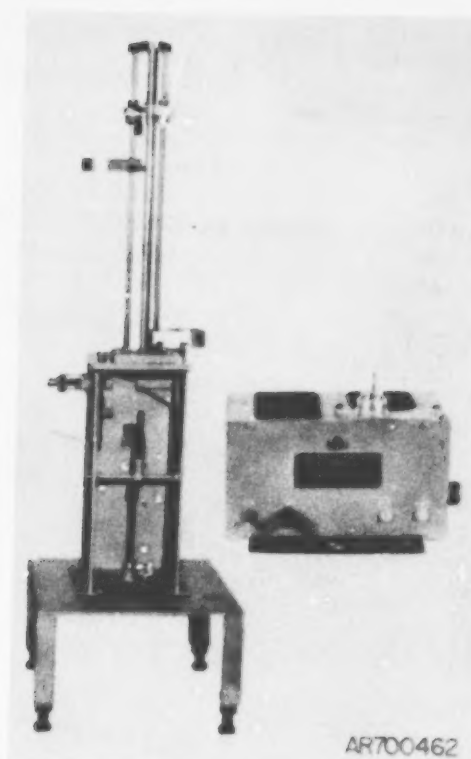


Figure 2-134.

Use:

The percussion primer tester is used to surveillance function test M1B1A2, M28B2, M32, M34, M57, M58, M60A1, M71E1, M82, and MK2A4 percussion primers. It will also disassemble the primer head from the primer body on M1B1A2, M28B2, M58, and M60A1 primers.

Description:

The tester consists of a primer firing stand with drop tower, electromagnet, and safety cups, a control box with connecting cables, a tool box with the primer firing tools, and a primer piercing fixture.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19310000

Unit of Issue Each

Installation Data:

TESTER

Length 21 in.

Width 21 in.

Height 70 in.

Weight 263 lbs

POWER SUPPLY

Length 9 in.

Width 5 in.

Height 6 in.

TOOL BOX

Length 21 in.

Width 9 in.

Height 9 in.

PRIMER PIERCING FIXTURE

Length 10 in.

Width 6 in.

Height 11 in.

Utilities Required:

115 vac, single phase, 60 Hz,
5 amp.

Production Capacity:

Varies with primer being
tested.

Shipping Data:

Length 49 in.

Width 24 in.

Height 29 in.

Cube 20 cu ft

Weight 393 lbs

Associated Equipment:

None.

Kits:

1931E001 KIT, Primer Piercing
Fixture1931E002 KIT, Continuity Test
for MK42 Primers

APE 1932--TESTER, TRACER

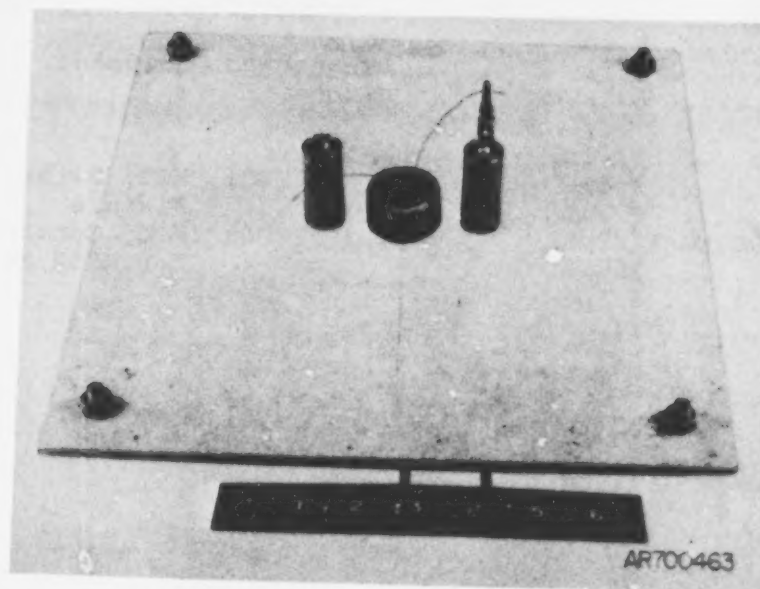


Figure 2-135.

Use:

The tracer tester is used to perform static burning time tests on XM10 tracers and other tracers with a body diameter of 1 inch or less.

Description:

The tester consists of a transit base with a tracer holding cup, two electrodes with alligator clips, and a steel wire heating element.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19320000

Unit of Issue Each

Installation Data:

Length 12 in.

Width 12 in.

Height 4 in.

Weight 2 lbs

Utilities Required:

100 volts dc.

Production Capacity:

Not applicable.

Shipping Data:

Length 13 in.

Width 13 in.

Height 4 in.

Cube 0.4 cu ft

Weight 7 lbs

Associated Equipment:

None.

Kits:

None.

APE 1933--DEVICE, ALTITUDE AND DRIFT

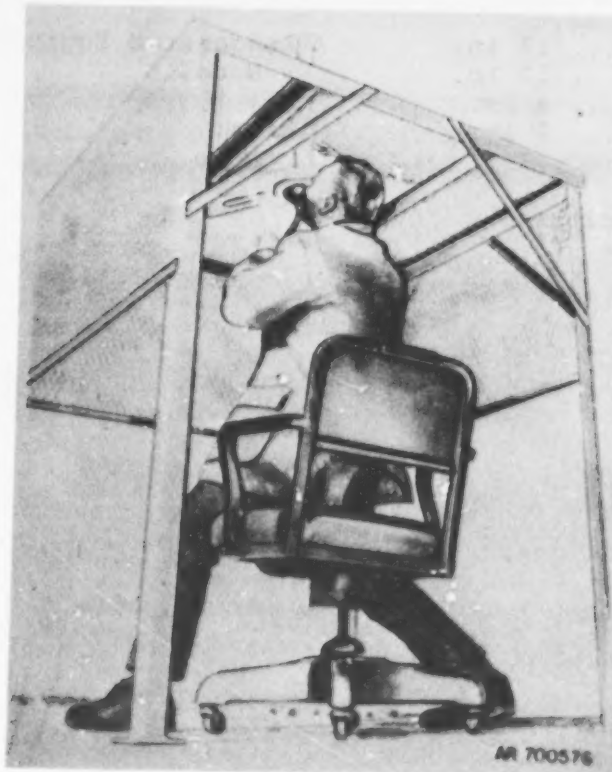


Figure 2-136.

Use:

The altitude and drift device is used to surveillance function test Signal, Illumination, Ground: Red Star, Parachute, M131.

Description:

The equipment consists of two sighting devices with carrying cases, two protective stands, and the necessary tables to compute the readings taken from the observations.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19330000

Unit of Issue Each

Installation Data:

Length 48 in.

Width 48 in.

Height 80-3/4 in.

Weight 250 lbs

Utilities Required

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 48 in.

Width 48 in.

Height 60 in.

Cube 80 cu ft

Weight 300 lbs

Associated Equipment:

APE 1918M1.

Kits:

None.

APE 1934--AGENT SAMPLING UNIT FOR CHEMICAL BOMBS

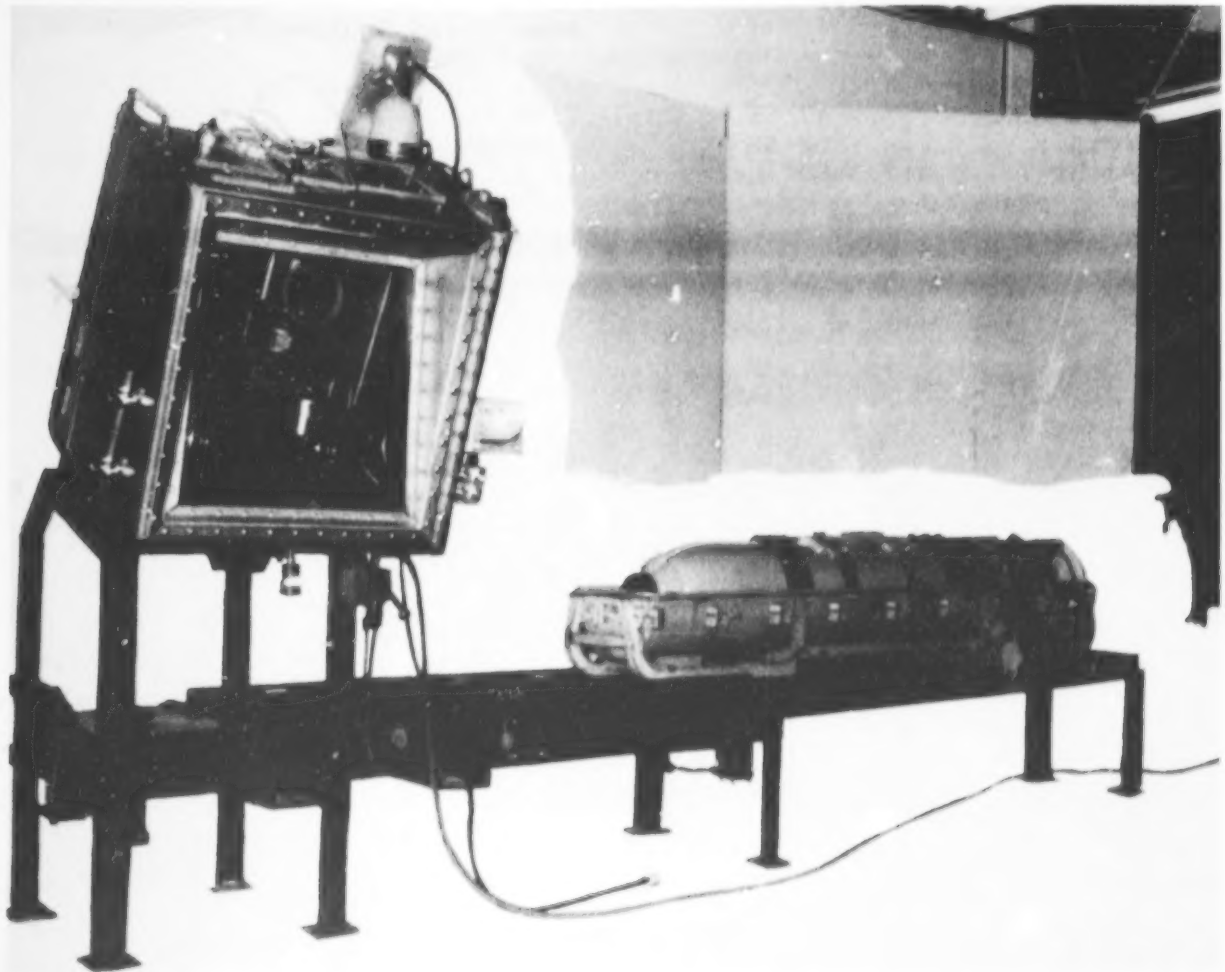


Figure 2-137.

Use:

The agent sampling unit is used for agent sampling of bomb, gas, 500 lb, MK94 Mod O, Bomb, Gas 750 lb, MC-1, Bomb, Gas MK116 Mod O (Weteye) and TMU-28/B spray tank.

Description:

The unit consists of a totally enclosed head assembly with a removable plexiglass window provided

with two glove ports, a movable drill unit, a two piece mounting stand for MK94, MC-1, M116 (Weteye) bombs and a stand for TMU-28/B spray tanks. Agent sampling is accomplished by drilling, sampling, hand tapping and plugging the munition.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19340000

Unit of Issue Each

Installation Data:

Length 156 in.

Width 30 in.

Height 78 in.

Weight 1458 lbs

Utilities Required:

Air at 90 psi, 125 CFM. Elec-
tricity - 110V, 60 Hz, single
phase and 230V 60 Hz, 3 phase.

Production Capacity:

Not applicable.

Shipping Data:

SAMPLING UNIT

Length 42 in.

Width 35 in.

Height 80 in.

Cube 68 cu ft

Weight 650 lbs

CONVEYOR ASSEMBLY

Length 98 in.

Width 42 in.

Height 54 in.

Cube 129 cu ft

Weight 908 lbs

Associated Equipment:

M6A1 Gas Particulate filter
unit (2 ea).

Kits:

None.

APE 1935--TEST EQUIPMENT, CONTINUITY AND FUNCTION, FMU 7A/B FIRE BOMB



Figure 2-138.

Use:

The continuity and function test equipment is used to test FMU 7A/B, FMU 7B/B, and FMU 7C/B series fuzes, initiators, and cable assemblies.

Description:

The equipment consists of a test console, a pull tester, a dual channel dc amplifier recorder, a fuze holding fixture, a drop tower, and a box type operational shield.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19350000

Unit of Issue Each

Installation Data:**TEST CONSOLE**

Length 30 in.

Width 24 in.

Height 60 in.

Weight not available

PULL TESTER

Length 50 in.

Width 8-1/2 in.

Height 13 in.

Weight not available

RECORDER

Length 10-1/2 in.

Width 14-1/2 in.

Height 16-1/2 in.

Weight not available

FUZE HOLDER

Length 19 in.

Width 8-1/2 in.

Height 13 in.

Weight not available

DROP TOWER

Length 72 in.

Width 60 in.

Height 120 in.

Weight not available

Utilities Required:

115 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length 10 ft

Width 5 ft

Height 6 ft

Cube 300 cu ft

Weight 2000 lbs

Associated Equipment:

APE 1196.

Kits:

None.

APE 1937--SHELTER, PERSONNEL PROTECTION



Figure 2-139.

Use:

The portable barricade is used to protect personnel while performing surveillance function tests.

Difference Between Models:

Original design. This item will replace APE 1905.

Description:

The portable barricade is constructed of aluminum sheet over compressed fiberglass insulation. Windows are positioned so that tests can be observed and recorded. The windows are made of 3/4-inch plexiglass.

Tabulated Data:

APE No. 19370000
Unit of Issue Each
Installation Data:
Length 114 in.
Width 114 in.
Height 94 in.
Weight 5750 lbs

Utilities Required:
None.

Production Capacity:
Not applicable.

Associated Equipment:
APE 1920, 1926.

Shipping Data:

Length 114 in.
Width 114 in.
Height 94 in.
Cube 707 cu ft
Weight 5750 lbs

Kits:

1937E001 KIT, Periscope and Step
Stool
1937E002 KIT, Screens for Over-
head Windows
1937E003 KIT, Lanyard Controls
1937E004 KIT, Lanyard Guide Unit

APE 1938--CHAMBER, LOW TEMPERATURE

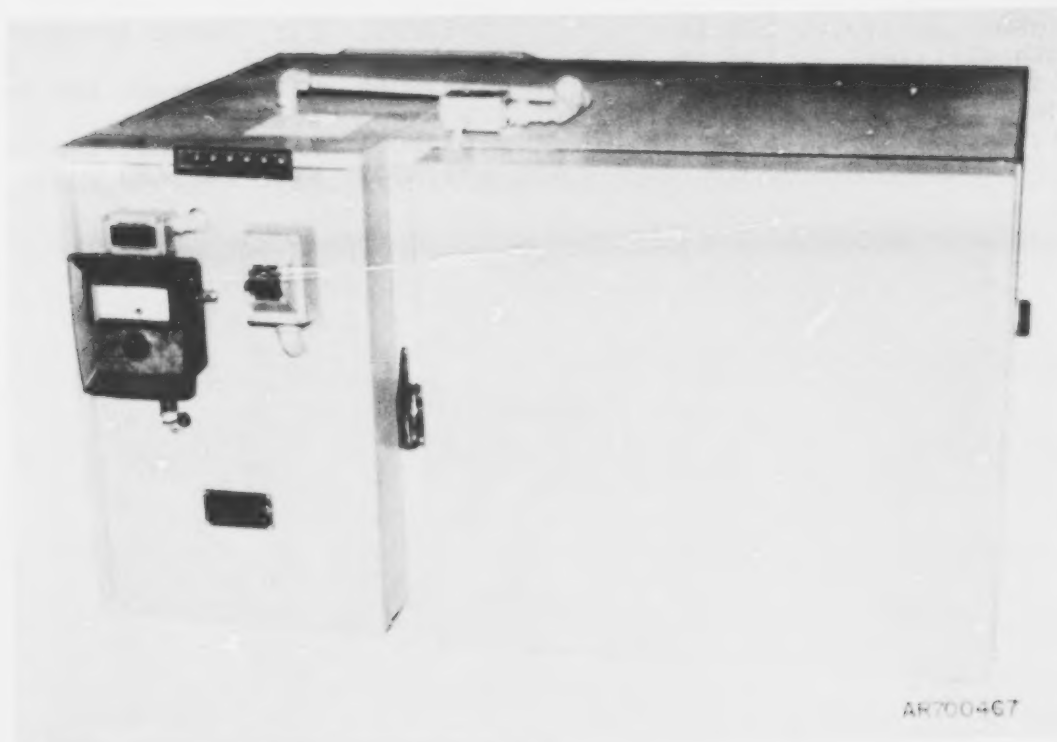


Figure 2-140.

Use:

The low temperature chamber will be used to temperature condition ammunition or ammunition related items to as low as -70F.

Description:

The chamber is a self-contained electric motor operated, air cooled unit complete with mechanical refrigeration system and controls. Interior dimensions of test compartment are 18 inches wide x 26 inches deep x 20 inches high.

Difference Between Models:

Original design. This item will replace APE 1904.

Tabulated Data:

APE No. 19380000

Unit of Issue Each

Installation Data:

Length 50 in.

Width 43-1/2 in.

Height 40-1/2 in.

Weight not available

Utilities Required:

230 vac, single phase, 60
Hz, 20 amp.

Production Capacity:

Not applicable.

Shipping Data:

Length 56 in.
 Width 51 in.
 Height 42 in.
 Cube 104 cu ft
 Weight 1096 lbs

Associated Equipment:

None.

Kits:

None.

APE 1939M1--EQUIPMENT, CONTINUITY AND RESISTANCE TEST

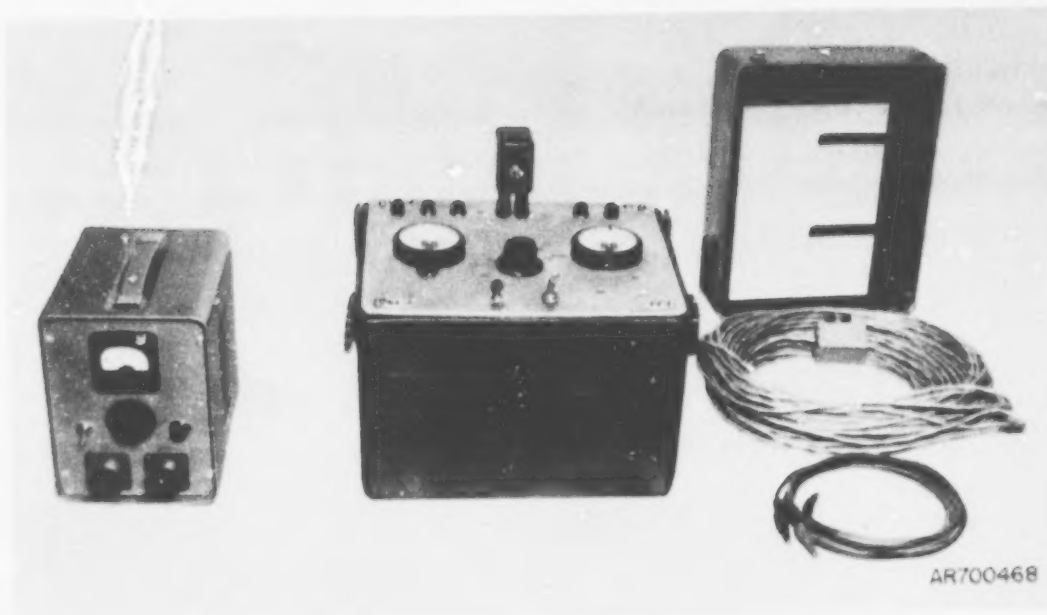


Figure 2-141.

Use:

The continuity test equipment is used to electrically test M509 fuzes used in 106MM, M344A1 projectiles.

Description:

The equipment consists of a continuity tester, with self contained battery and battery charger, 100 feet of shielded cable and an adapter cord for battery charging.

Difference Between Models:

M1 has a self contained battery charger and is more compact.

Tabulated Data:

APE No. 19390000M1
Unit of Issue Each
Installation Data:

TESTER

Length 12 in.
Width 9 in.
Height 11 in.
Weight 15 lbs

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length 16 in.
Width 12 in.
Height 13 in.
Cube 1.4 cu ft
Weight 50 lbs

Associated Equipment:

None.

Kits:

None.

APE 1940M3--TESTING FIXTURE, MINE, AP, M16

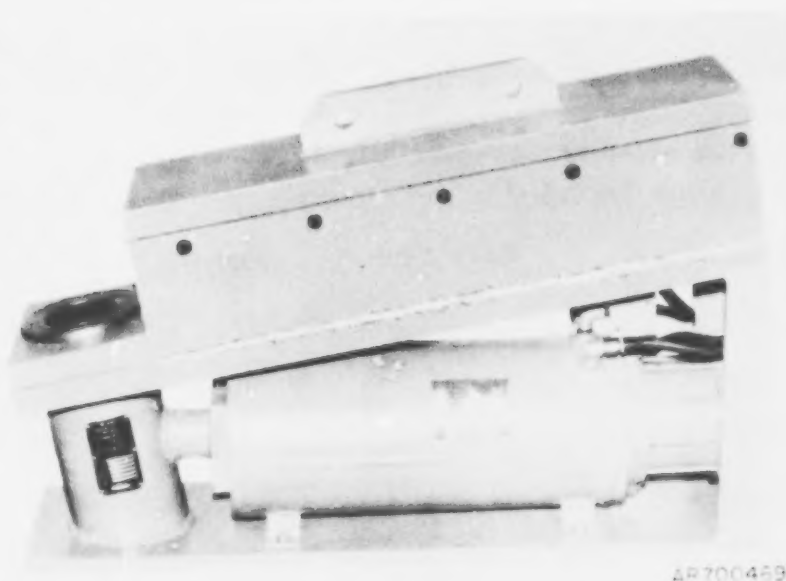


Figure 2-142.

Use:

The mine testing fixture is used to function test M16, AP Mines. The fixture contains a mechanism which can shear the fuze from a dud mine and eject it away from the fixture.

Description:

The fixture consists of a heavy steel frame with a hardened steel cover which protects everything except the mine holder. Within the frame are two air cylinders, the control valves, and an accumu-

lator. A hand control valve for remote operation and connecting hoses are also provided.

Difference Between Models:

The APE 1940M3 has an accumulator tank that is fabricated and tested locally. Rubber hoses of the original design are replaced by steel tubing. The front cover was replaced by a hardened steel plate and the hole for the shear has been made smaller to keep debris from getting inside.

Tabulated Data:

APE No. 19400000M3
 Unit of Issue Each
 Installation Data:
 Length 42-1/2 in.
 Width 11 in.
 Height 28 in.
 Weight 1330 lbs
 Utilities Required:
 Air at 60 psi to 110 psi.
 Production Capacity:
 Not applicable.

Shipping Data:

Length 53 in.
 Width 42 in.
 Height 37 in.
 Cube 48 cu ft
 Weight 1550 lbs

Associated Equipment:

APE 1920, 1937.

Kits:

1940E001 KIT, Function Test
 Equipment for M26
 Mines

APE 1949--TIMING DEVICE, AUTOMATIC FOR FIRING DEVICE,
DEMOLITION: DELAY TYPE, M1

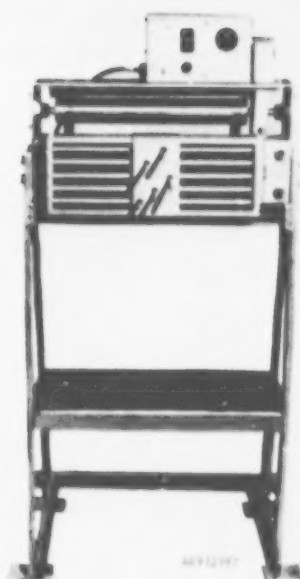


Figure 2-143.

Use:

The automatic timing device is used to automatically record the time interval from initiation to firing of Firing Device, Demolition: Delay Type, M1.

Description:

The device consists of a metal frame, a firing device holder, an initiator door, a tabulating paper drive mechanism and a control box. A reading board is provided to aid in reading the test results.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19490000

Unit of Issue Each

Installation Data:

Length 22.5 in.

Width 24 in.

Height 45 in.

Weight 200 lbs

Utilities Required:

115 VAC 60 Hz, single phase,
6.8 amps.

Production Capacity:

Not applicable.

Shipping Data:

Length 29 in.
Width 28 in.
Height 52 in.
Cube 25 cu ft
Weight 320 lbs

Associated Equipment:

None.

Kits:

None.

APE 1951M1--TEST EQUIPMENT, M176 & M226 GRENADE LAUNCHER



AR700470

Figure 2-144.

Use:

The test equipment is used for surveillance testing of M176 and M226 grenade launchers. The equipment is used to torque test, leak test, and function test the grenade launchers.

Description:

The equipment consists of a torque test fixture, a leakage test fixture, and a function test fixture.

Difference Between Models:

M1 model changes the adjustment of

the firing angle from 33° to 62° and replaces the firing pin retainer. Basic model not authorized for use.

Tabulated Data:

APE No. 19510000M1
Unit of Issue Each

Installation Data:

LEAK TEST FIXTURE

Length 27 in.
Width 14 in.
Height 16 in.
Weight 62 lbs

FUNCTION TEST FIXTURE

Length 24 in.
Width 24 in.
Height 77 in.
Weight 182 lbs

TORQUE TEST FIXTURE

Length 8 in.
Width 8 in.
Height 13 in.
Weight 23 lbs

Utilities Required:

115 vac, single phase, 50/60
Hz.

Production Capacity:

LEAK TEST FIXTURE

60 launchers per hour.

FUNCTION TEST FIXTURE

6-10 launchers per hour.

TORQUE TEST FIXTURE

60 launchers per hour.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

APE 1937, 1963.

Kits:

1951E001 Comparator

All Data on Page 2-298 and 2-299, Including Figure 2-145 Deleted.

APE 1953--EQUIPMENT, CONDUCTIVE FLOOR AND CONDUCTIVE SHOE TEST

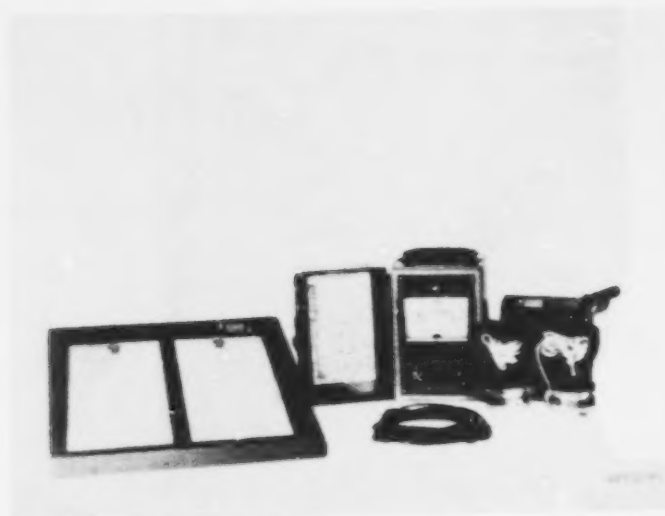


Figure 2-146.

Use:

The conductive floor and conductive shoe test equipment is used to check the resistance of conductive floors, conductive shoes, and grounding rods for aircraft. This test is to insure good ground for preventing static electric build-up.

Description:

The equipment consists of an ohmmeter with test leads, two electrodes with carrying case, and personnel test plate.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19530000

Unit of Issue Each

Installation Data:

OHMMETER

Length 9 in.

Width 6-1/4 in.

Height 9-1/4 in.

Weight 18 lbs

ELECTRODE CASE

Length 6 in.

Width 4-1/2 in.

Height 6 in.

Weight 6 lbs

PERSONNEL TEST PLATE

Length 19 1/2 in.

Width 12 in.

Height 2 in.

Weight 6 lbs.

Utilities Required:

None

Production Capacity:

Not applicable

Shipping Data:

Length 23 in.

Width 20 in.

Height 12 in.

Cube 3.2 cu ft

Weight 90 lbs

Associated Equipment:

None.

Kits:

1953E001 KIT, Compression Test
Fixture1953E003 KIT, Aircraft Ground
Test

APE 1955--GRENADE FUZE TESTER

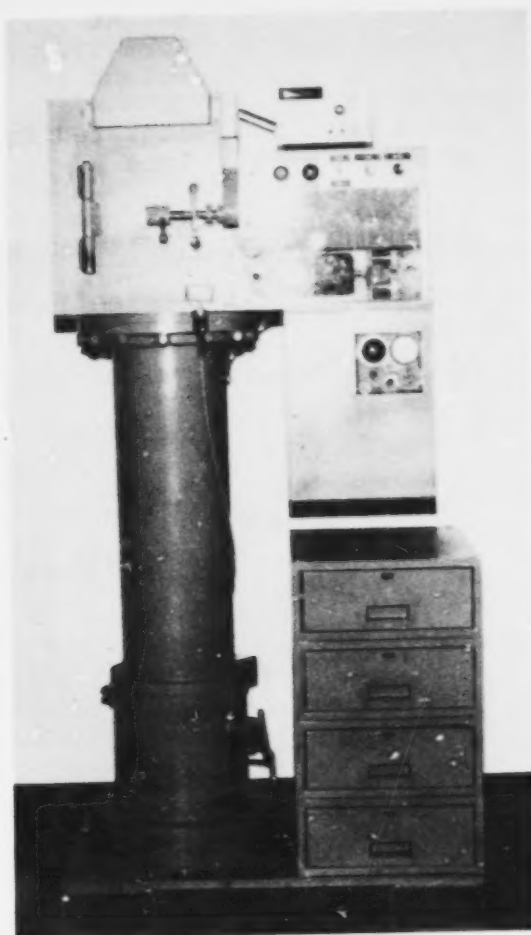


Figure 2-147.

Use:

The grenade fuze tester is used to measure the time delay of M204, M205, M206, M213 and M215 hand grenade fuzes in a static test and dynamic test. The fuze is secured in the tester and detonated in a static position. The tester is used to perform a dynamic test on the fuzes whereby the fuze is armed and dropped four feet onto a horizontal steel plate, where detonation occurs.

Description:

The tester consists of a drop tube and lower barricade assembly, an upper chamber assembly, a fuze holder assembly for 9/16 inch threaded body and fuze holder assembly for 5/8 inch threaded body. The tester is air operated and has an electric blower. The time delay test is measured by an electronic timer.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19550000

Unit of Issue Each

Installation Data:

Length 36 in.

Width 20 in.

Height 75-1/4 in.

Weight 1,380 lbs

Utilities Required:

Air at 70 psi. Electrical -
115V, 60 cycles.

Production Capacity:

Not applicable.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

None.

Kits:

None.

APE 1956--TEST EQUIPMENT, 66MM INCENDIARY ROCKET

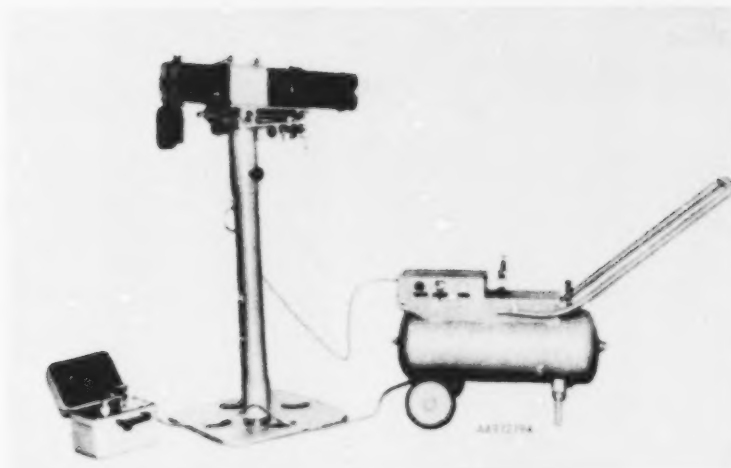


Figure 2-148.

Use:

The test equipment is used to function test 66MM incendiary rocket ammunition.

Description:

The test equipment consists of a function test fixture on which the rocket launcher is mounted; a compressed air storage tank; a control box; and connecting air lines. Rocket launcher is to be furnished by the user.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19560000

Unit of Issue Each

Installation Data:

FUNCTION TEST FIXTURE

Length 23-1/8 in.

Width 23-1/8 in.

Height 58-1/2 in.

Weight 78 lbs

AIR TANK

Length 42 in.
Width 17 in.
Height 26 in.
Weight 98 lbs

CONTROL BOX

Length 11 in.
Width 8 in.
Height 9 in.
Weight 12 lbs

Utilities Capacity:

Compressed air to charge air tank.

Production Capacity:

Not applicable.

Shipping Data:

Length 64 in.
Width 48 in.
Height 34 in.
Cube 61.0 cu ft
Weight 420 lbs

Associated Equipment:

APE 1905 or APE 1937, M202 or M202A1 rocket launcher, inert 4-round clip of 66MM rocket ammunition, and a gunner's quadrant, special firing range.

Kits:

None.

APE 1957--DEVICE, CHEMICAL MUNITION AGENT SAMPLING



Figure 2-149.

Use:

The device is used to drill, drain, tap and sample lethal agent filled 105MM, 155MM, and 8 inch projectiles and mines to chemically detoxify the chemical agents when necessary.

Description:

The item consists of a stainless steel tank inclosed in a hood or cover. Inside the hood is a mov-

able drill fixture, an agitator and a circulating pump. The tank hood or enclosure contains plexiglass windows with glove ports and an adaptor for use in connecting an M6 gas particulate filter unit to the hood. In an emergency disposal, procedures are authorized in Public Law 91-121 and 91-441.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19570000

Unit of Issue Each

Installation Data:

Length 64 in.

Width 38 in.

Height 83 in.

Weight 3000 lbs

Utilities Required:

Air at 90 psi 125 cfm, electricity 120 VAC single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length 76 in.

Width 50 in.

Height 95 in.

Cube 105 cu ft

Weight 3200 lbs

Associated Equipment:

M6A1 Gas Particulate Filter Unit.

Kits:

1957E001 KIT, Equipment for Leak Testing Rubber Gloves

1957E002 KIT, for Sampling M23 Mines

APE 1958M1--CAN LEAK TEST DEVICE

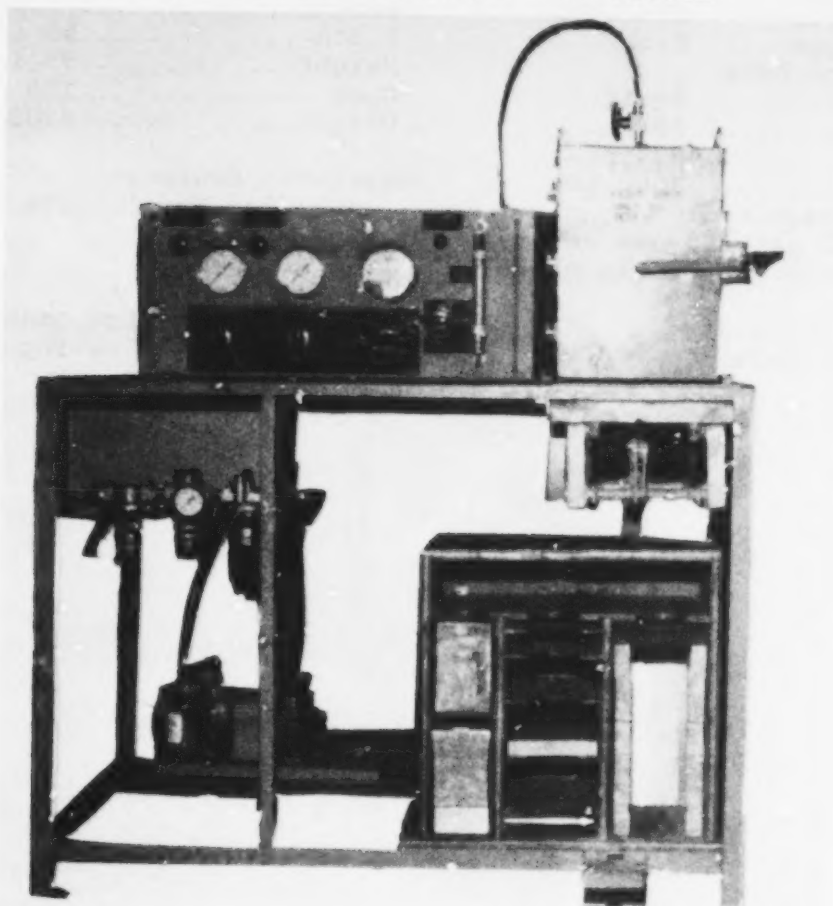


Figure 2-150.

Use:

The device is designed to test gasket sealed, quick opening, ammunition containers for leaks by using a vacuum test.

M1 mo

&del has a chamber vent valve
Description:

The device consists of a test chamber, which when combined with fillers, houses the ammunition can during can leak tests; the vacuum pumping system that creates a vacuum in the test chamber and test circuit; and a control panel

containing meters, controls and valves for operation and evaluation of can leak test.

Difference Between Models:

to provide for rapid reduction of the vacuum in the chamber, and a ball transfer loading plate, operated by a foot lever, provided primarily for use when leak testing larger ammunition cans such as the M548 and M592.

Tabulated Data:

APE No. 19580000M1

Unit of Issue Each

Installation Data:

Length 48 in.

Width 30 in.

Height 60 in.

Weight 650 lb.

Utilities Required:

Air at 90 psi

Production Capacity:

60 cans per hr.

Shipping Data:

Length 54 in.

Width 36 in.

Height 68 in.

Cube 84 in.

Weight 925 lbs.

Associated Equipment:

None

Kits:

1958E001 KIT, Test Chamber for
Containers M548 and M592

1958E002 KIT, M621 Container
Liner

APE 1959M1--UNIT, AGENT SAMPLING, FOR CHEMICAL MUNITIONS

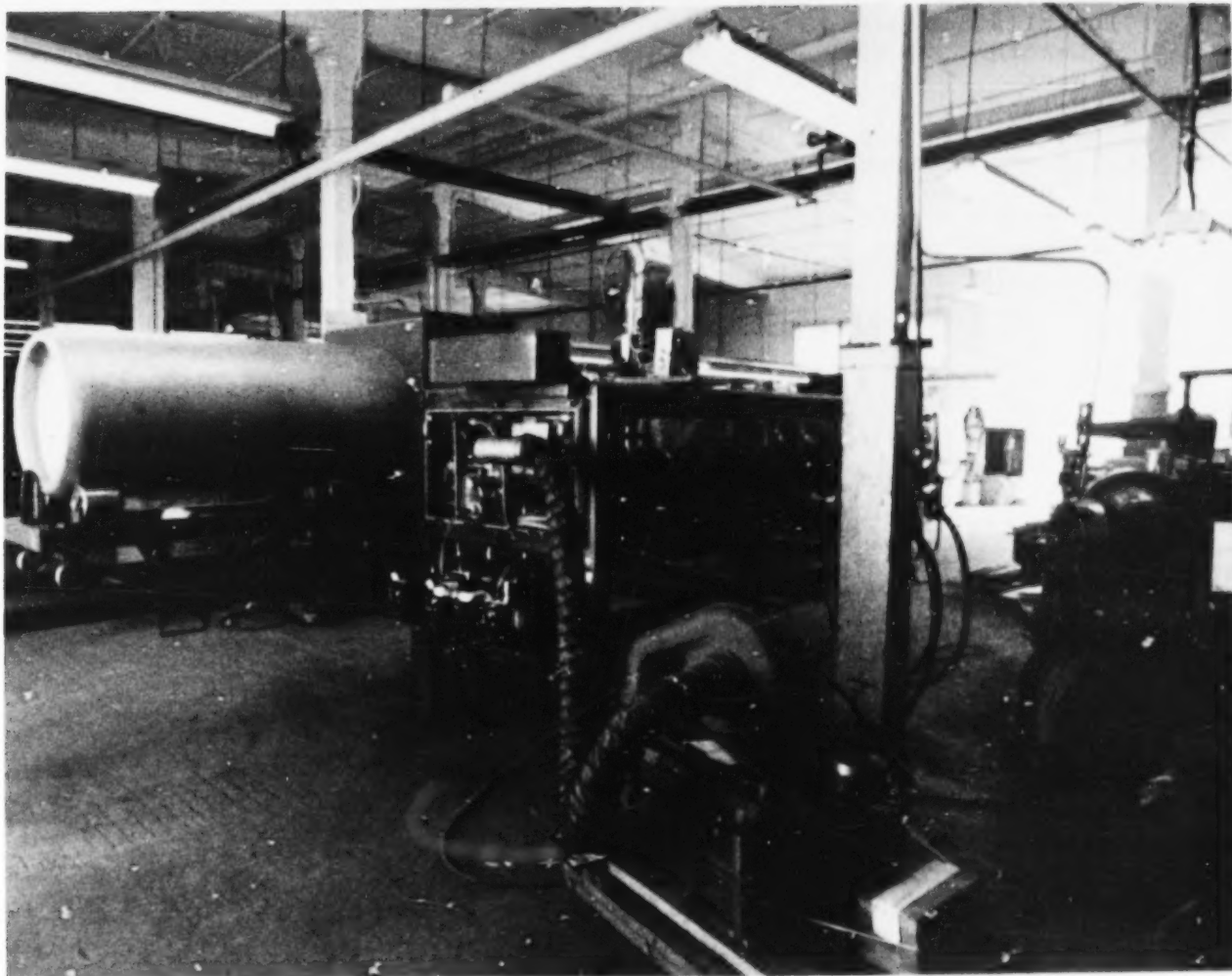


Figure 2-151.

Use:

The agent sampling unit is used for drilling, tapping and sampling lethal agent filled M23 mines, 115MM rockets, 105MM, 155MM and 8 inch projectiles. It also has the capability to chemically detoxify the complete munition and to transfer the agent to a ton container or standard D.O.T. bottle.

Description:

The unit consists of a totally enclosed hood assembly with six plexiglass windows and eight glove ports. It also has eight drilling stations and a movable combination drill/tapper unit.

Difference Between Models:

M1 has a ton container attaching fixture also a contaminated/decontaminated divider.

Tabulated Data:

APE No. 19590000M1
Unit of Issue Each

Installation Data:

Length 120 in.
Width 48 in.
Height 78 in.
Weight 4260 lbs

Utilities Required:

Air at 90 psi, 125 CFM. Elec-
tricity - 110V, 60 Hz, single
phase and 230V, 60 Hz 3 phase
(30 amps).

Production Capacity:

Not applicable.

Shipping Data:

Length 135 in.
Width 56 in.
Height 89 in.
Cube 389 cu ft
Weight 5000 lbs

Associated Equipment:

M6A1 gas particulate filter
unit (4 ea).

Kits:

None.

APE 1960M1--FIXTURE, PROJECTILE CONCENTRICITY CHECK

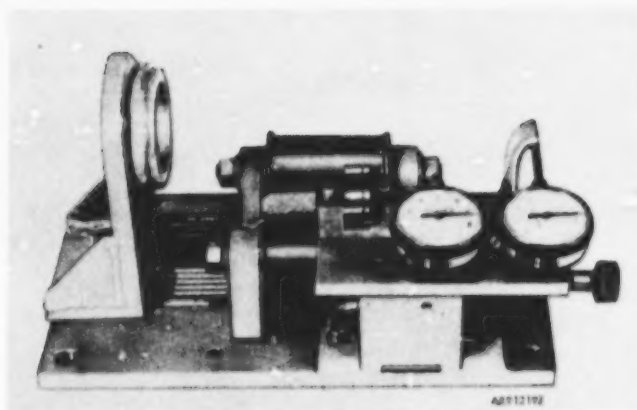


Figure 2-152.

Use:

The projectile concentricity check fixture is used to check the run-out of the centering band and sheath and subprojectile of the M392 series (L36A1), 105MM, APDS-T projectile. The complete round can be concentricity checked with this machine.

Description:

The fixture consists of two dial indicators mounted on a base which has rollers for rotating the projectile. The complete cartridge kit 1960E001 adapts the fixture for use with complete cartridges.

Difference Between Models:

The 1960M1 has a follower roller with a ridge instead of a smooth roller and has been modified for floating on a steel ball when checking a complete round.

Tabulated Data:

APE No. 19600000M1

Unit of Issue Each

Installation Data:

1960M1

Length 14-1/2 in.

Width 9-3/4 in.

Height 7 in.

Weight 23 lbs

E001

Length 40-3/4 in.

Width 14 in.

Height 17-1/2 in.

Weight 41 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 48 in.

Width 24 in.

Height 16 in.

Cube 10.7 cu ft

Weight 160 lbs

Associated Equipment:

None.

Kits:

1960E001 ADAPTER, Complete Cartridge

1960E002 ADAPTER, Standard, Projectile Setup

1960E003 ADAPTER, Standard, Complete Cartridge Setup

APE 1961--FIXTURE, SUBCALIBER TORQUE TEST

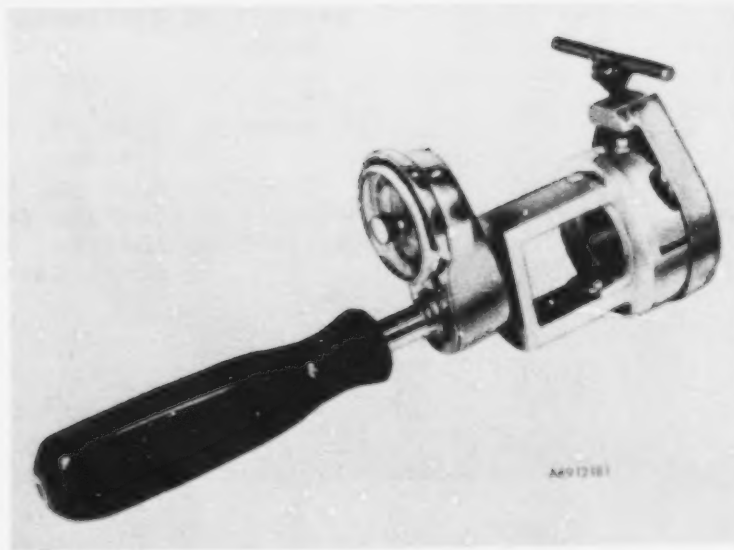


Figure 2-153.

Use:

The subcaliber torque test fixture is used to apply a specified torque to the subcaliber projectile of the 105MM M392 series (L36A1), APDS-T projectile.

Description:

The fixture consists of a torque driver and an adapter to grip the subcaliber projectile.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 19610000
Unit of Issue Each

Installation Data:

TORQUE DRIVER

Length 8-1/2 in.
Width 2 in.
Height 3-1/2 in.
Weight 5 lbs

ADAPTER

Length 4-1/4 in.
Width 3-1/2 in.
Height 2-7/8 in.
Weight 1 lb

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 13 in.
Width 5 in.
Height 5 in.
Cube 325 cu in.
Weight 7 lbs

Associated Equipment:

APE 1065, 1204, 1294.

Kits:

None.

APE 1962M1--FIXTURE, PRIMER TORQUE TEST



Figure 2-154

Use:

The primer torque test fixture is used to hold the 105mm cartridge case so a specified disassembly/assembly torque can be applied to its primer. With the addition of kits, the fixture can be adapted to perform continuity tests on the electric primers in: the 105mm cartridge case; the 5"/54 cartridge case with MK45 primer; and the MK42 primer.

Description:

The primer torque test fixture consists of a cartridge case base,

a cartridge case holder and deflector to provide personnel protection. The basic machine may be disassembled and adapted to perform continuity tests of the Navy 5"/54 cartridge case and the MK42 primer.

Difference Between Models:

The APE 1962M1 is capable of holding the Navy 5"/54 cartridge case and the Navy MK42 primer in addition to the Army 105MM cartridge case. The exchange of the holding fixtures is accomplished by the removal of cap screws which

hold the fixtures to the machine base. The APE 1962 is all welded construction and will only hold the 105mm cartridge case.

Tabulated Data:

APE No. 19620000M1

Unit of Issue Each

Installation Data:

Length 22 in.

Width 24 in.

Height 38 in.

Weight 70 lbs.

Occupied Floor

Space 3.7 sq. ft.

Overall Cube ... 11.6 cu. ft.

Utilities

Required None

Production Capacity:

Not applicable

Shipping Data:

Length 30 in.

Width 38 in.

Height 43 in.

Cube 37.0 cu. ft.

Weight 277 lbs.

Associated Equipment:

Torque Wrench

APE 1980 - Universal Resistance

Test Instrument

Two Resistors

Kits:

1962E002 Torque Adapter, M80A1,
Round Pin

1962E003 Torque Adapter, M80A1,
Slotted

1962E004 Continuity Test Kit

1962E005 5"/54 Cartridge Case
Holder

1962E006 MK42 Primer Resistance
Test Kit

APE 1963--UNIT, ELECTRONIC CONTROL

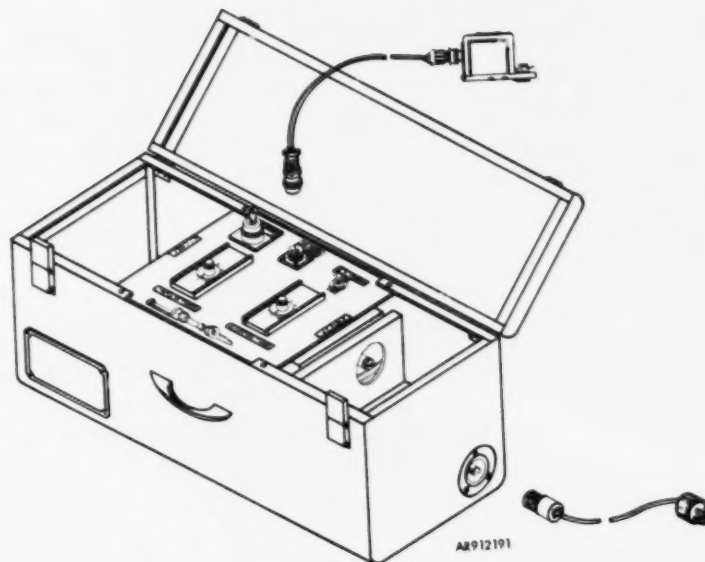


Figure 2-155.

Use:

The electronic control unit is used to remotely control the firing of weapons and launchers. The unit provides a 28 volt DC pulse to a solenoid. The duration of the pulse can be controlled.

Description:

The unit consists of a control box, a solenoid cable assembly, and a solenoid. The unit has a key lock firing mechanism.

Difference Between Models:
Original design.

Tabulated Data:

APE No.	19630000
Unit of Issue	Each
Installation Data:	
Length	20-1/8 in.
Width	8 in.
Height	9 in.
Weight	26 lbs
Utilities Required:	
115 VAC 60 Hz, single phase.	
Production Capacity:	
Not applicable.	

Shipping Data:

Length 24 in.
Width 10 in.
Height 12 in.
Cube 1.67 cu ft
Weight 36 lbs

Associated Equipment:
APE 1923, 1951M1.

Kits:
None.

APE 1964--CHEMICAL AGENT DETECTION DEVICE

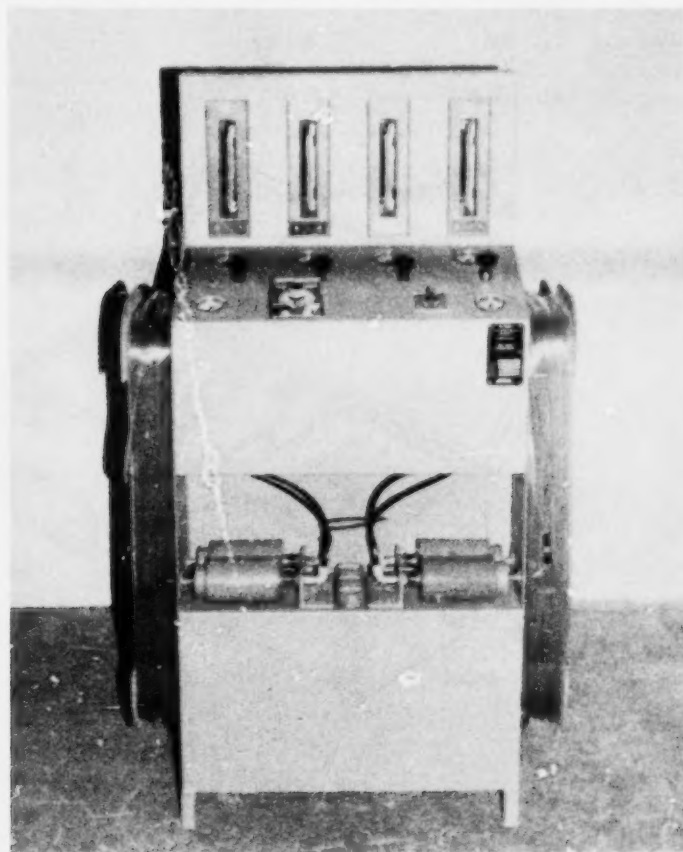


Figure 2-155.1.

Use:

The chemical agent detection device is used to test for the presence of mustard agent in igloos.

samples of air from four locations inside the igloo. The device is not designed to be positioned in the igloo as the electrical wiring is not explosion proof.

Description:

The device is a portable unit that houses a vacuum system: flowmeters, metering valves, vacuum gages, and vacuum pump; and, electrical controls that permit preselecting a time period for the operation of the vacuum pump for the testing procedure. The vacuum pump draws

Difference Between Models:
Original Design.

Tabulated Data:

APE No.	19640000
Unit of Issue	Each
Installation Data:	
Length	34 in.
Width	23 in.

Height 56-1/2 in.
 Weight 203 lbs.
 Utilities Required:
 115 VAC, 60Hz, Single Phase
 Production Capacity:
 Not applicable

Shipping Data:
 Length 22 in.
 Width 34 in.
 Height 44 in.
 Cube 19 cu. ft.
 Weight 156 lbs.

Associated Equipment:
 None

Kits:
 None

All Data on Pages 2-320.2 and 2-321, Including Figure 2-156 Deleted.

2-320.1

APE 1967M1--FUNCTION TEST EQUIPMENT SIGNALS M185 THROUGH M190

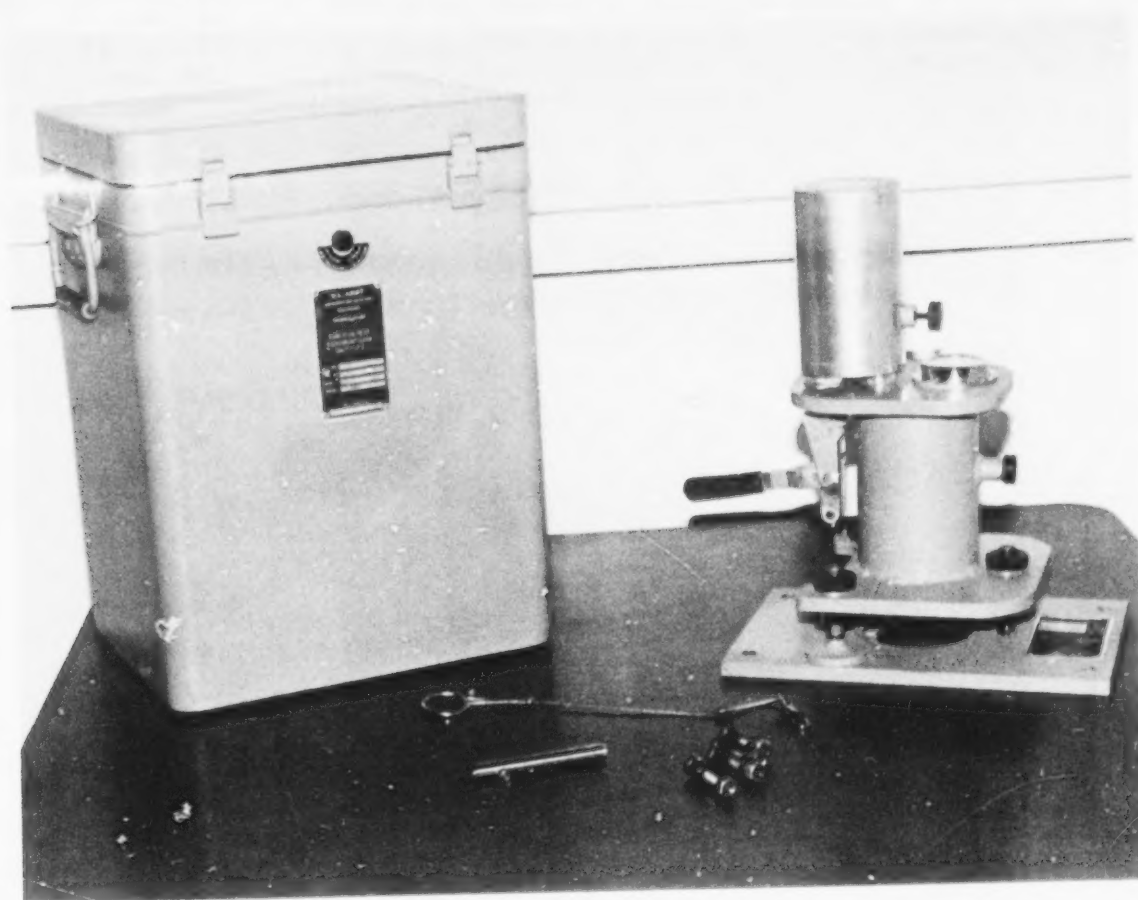


Figure 2-157

Use:

The function test equipment is used to function test M185 through M190 signals and check the fire pin force in the pyrotechnic projector in M185 through M190 signals.

Description:

The test equipment consists of a holder assembly to hold the pro-

jector in the cocked position for remote firing. The equipment includes a cocking assembly, a projector assembly, a cable assembly, and a cover assembly. The equipment has its own storage box.

Difference Between Models:

The M1 has a function control safety added to prevent a signal from being fired while it is being screwed into the projector and prevents re-use of fixture until safety is returned to safe position.

Tabulated Data:

APE No. 19670000

Unit of Issue Each

Installation Data:

APE 1967

Length 12-1/2 in.

Width 8-1/4 in.

Height 16 in.

Weight 26 lbs

STORAGE BOX

Length 15 in.

Width 12-1/2 in.

Height 19 in.

Weight 16 lbs

APE 2167E001

Length 12-1/2 in.

Width 8-1/2 in.

Height 17 in.

Weight 24 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

APE 1903.

Kits:

1967E001 Force Indicator, Fir-
ing Pin for Projector
Signal

APE 1972--METER, WARHEAD CONDUCTIVITY TEST

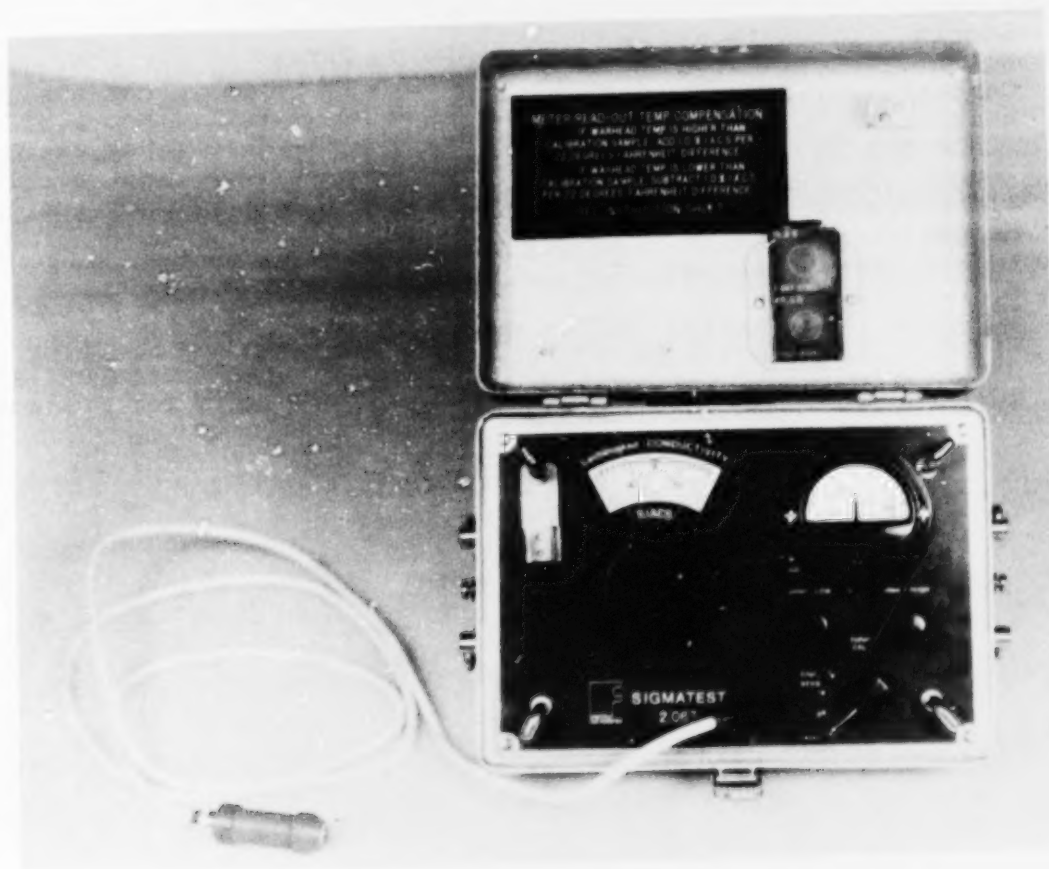


Figure 2-158.

Use:

The warhead conductivity test meter is used to determine the hardness properties of the M74, 66MM incendiary rocket warhead. It provides information to establish if the warhead is too soft for safe firing.

Description:

The test meter is a commercial battery powered unit which pro-

duces eddy currents in the warhead specimens. The magnitude of the eddy current is measured by the meter. This conductivity reading is proportional to the hardness of the warhead material.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 19720000

Unit of Issue Each

Installation Data:

Length 9-1/4 in.

Width 6-3/4 in.

Height 4 in.

Weight 4-1/2 lbs

Utilities Required:

Two 1.5 Volt batteries.

Production Capacity:

Not applicable.

Shipping Data:

Length 9-3/4 in.

Width 7-1/4 in.

Height 4-1/2 in.

Weight 5 lbs

Associated Equipment:

None.

Kits:

1972E001 KIT, Digital Thermo-
couple Readout Meter

APE 1974--TEST EQUIPMENT FOR L8 SERIES GRENADE

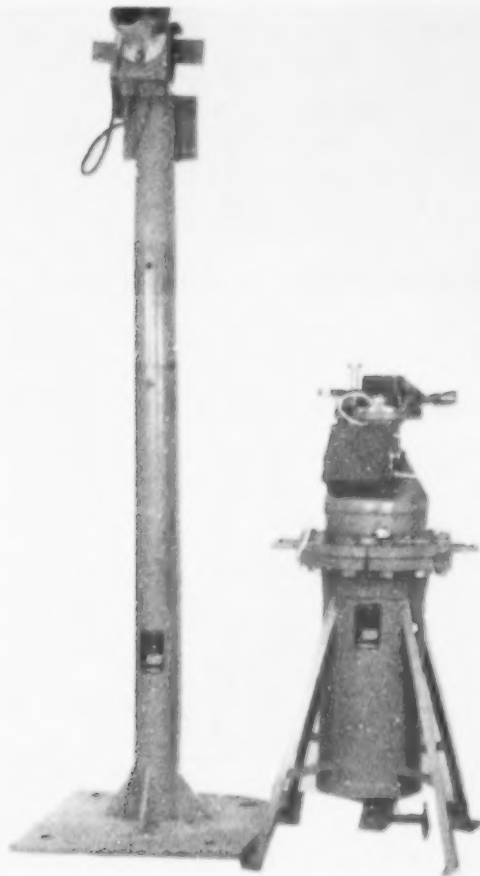


Figure 2-158.1.

Use:

The test equipment is designed for use in determining the serviceability of the grenades which may be fired from the M239 and M250 Grenade Launcher used to provide self-screening smoke capability to armored/tactical vehicles.

Description:

The continuity test fixture is used to test the continuity and resistance values of the grenade. The test fixture serves as an

operational shield in the event of accidental firing of the grenade.

The function test fixture is used to fire grenades from a specified height and angle to measure the height at which the grenade bursts and the distance downrange at which the grenade bursts.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 19740000
Unit of Issue Each

Installation Data:

CONTINUITY TEST FIXTURE

Length 31 in.
Width 31 in.
Height 49 in.
Weight 323 lbs.

FUNCTION TEST FIXTURE

Length 24 in.
Width 24 in.
Height 86 in.
Weight 185 lbs.

Utilities Required:

Production Capacity:

Shipping Data:

Length 55 in.
Width 32 in.
Height 63 in.
Cube 64 cu. ft.
Weight 881 lbs.

Associated Equipment:

APE 1980 Universal Resistance
Test Instrument
APE 1983 Range and Altitude
Measuring Device

Kits:

None

APE 1976--PNEUMATIC ACTUATION SYSTEM

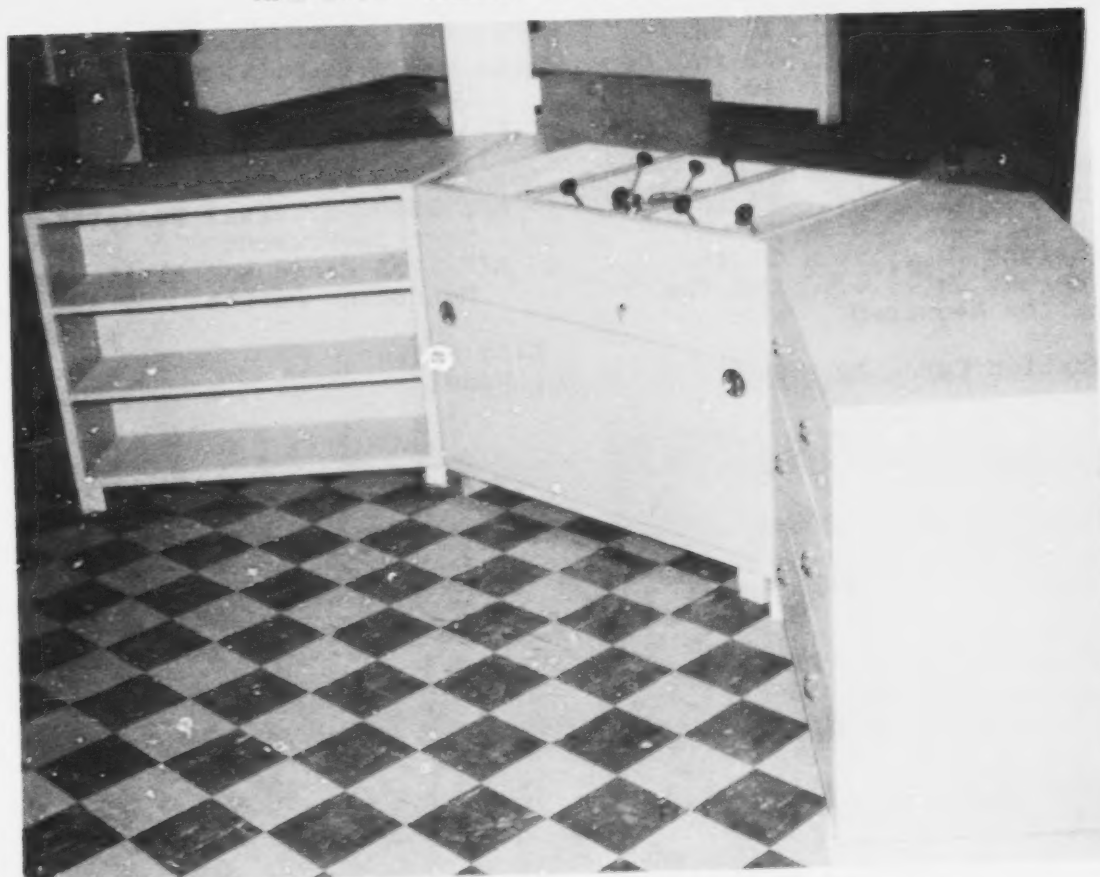


Figure 2-158.2.

Use:

The pneumatic actuation system is an pneumatically hand operated machine designed to remotely operate the APE 1922M1 Pneumatic Launcher for Function Testing of H.E. and Chemical Hand Grenades, the APE 1940M3 Fixture for Testing Mine, AP, M16, and the APE 1940E001, Kit for Function Testing Mine, AP, M26.

Description:

The pneumatic actuation system consists of a large cabinet with

three sections. The center section of the cabinet houses the pneumatic power and controls of the machine. The left and right sections of the cabinet are for storage of tools and equipment used in function testing. The following six satellite assemblies are used to adapt APE 1922M1, APE 1940M3, and APE 1940E001 for remote control use.

The scale box pneumatic assembly consists of three air cylinders which attach to the scale box of of the APE 1940E001 Kit.

The pneumatic lanyard pull assembly is composed of an air cylinder and three lanyards which attach to the M16 mine.

The pneumatic weight pull assembly consists of two cylinders used on the APE 1940E001.

The quick release valve pull assembly is used to activate the APE 1922M1 for grenade launching.

The pin pull assembly attaches to the pull gauge assembly of the APE 1922M1.

The air tank reservoir assembly is used to maintain the required compressed air pressure to function the APE equipment at remote distances from the air supply.

Equipment is provided to handle lanyards should they be used in place of the pneumatic system.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 19760000
Unit Of Issue Each

Installation Data:

Length 165-1/4 in.
Width 64 in.
Height 41-3/8 in.
Weight 4270 lbs.

Utilities Required:

Air at 90 psig

Shipping Data:

CRATE 1

Length 88 in.
Width 57 in.
Height 48 in.
Cube Not available
Weight 1200 lbs.

CRATE 2

Length 77 in.
Width 51 in.
Height 39 in.
Cube Not available
Weight 1830 lbs.

CRATE 3

Length 70 in.
Width 69 in.
Height 48 in.
Cube Not available
Weight 1240 lbs.

Associated Equipment

Approved personnel shelter and shield
Trench with removable cover
APE 1922M1, Launcher, Pneumatic for Function Testing of HE and Chemical Hand Grenades
APE 1940M3, Fixture for Testing Mine AP, M16
APE 1940E001, Kit for Function Testing Mine, AP, M26
APE 1978, Mine Test Monitoring System

Kits:

None.

APE 1978--MINE TEST MONITORING EQUIPMENT

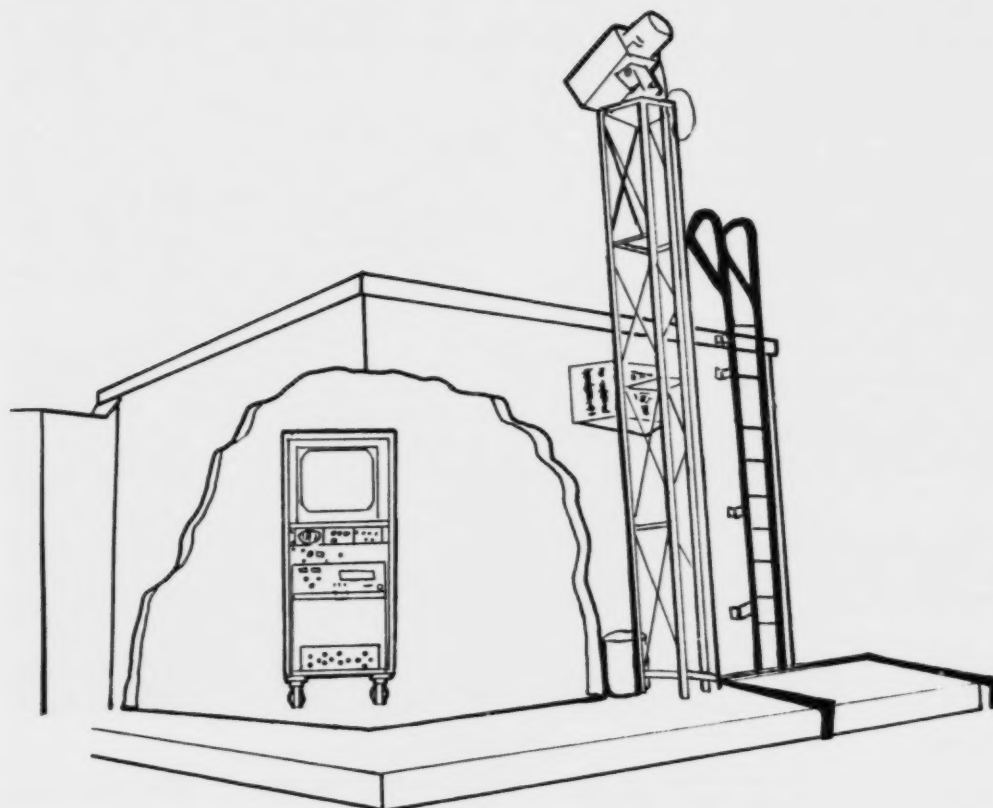


Figure 2-158.3

Use:

The test equipment is designed to provide operators at a function test range the capability to remotely view, record and evaluate function test operations from a non-hazardous location. The monitor, recorder, video scaler and remote control units are located inside a test shelter. The camera and its affiliated equipment are mounted on an outside tower at a height permitting a total view of the function test range.

Description:

The test equipment consists of a color video camera having a zoom lens attachment with automatic iris control, and an AC adapter to convert AC voltage to DC voltage. The camera, zoom lens and adapter are mounted in an environmental housing that provides automatic heating, cooling and a moisture barrier for these components. A camera cover assembly is provided as protection from possible shrapnel damage.

during function testing. These items are attached to the motorized pan/tilt unit. The entire mechanism will be mounted on a tower provided by the user at a test range site. The color video cassette recorder has slow motion and stop action features. The recorder, in conjunction with the video camera, is used to document function test proceedings. A color television monitor is used for viewing of the function test as it occurs, permitting the operator to make camera adjustments as necessary to obtain the best possible vantage point for video taping of the test. The monitor is also used for reviewing video tapes to evaluate and document function test data. A video scaler generates and superimposes selectable scale or gridding onto the monitor and video recording of the function test. The scale or gridding mode best suited for individual function tests may be selected by the equipment operator. A pan/tilt remote control unit provides vertical and horizontal movement of the camera, allowing operator to adjust the field of view as necessary. A zooms lens control allows remote control of the motorized zoom lens. Push-button operation provides distance and focus adjustments to picture. An equipment cabinet with casters, adjustable shelves and doors that lock is provided to house the television monitor, video cassette recorder, the video scaler, pan/tilt remote control unit and the zoom lens remote control unit. The cabinet has an outlet box with a switch, 6 three-pronged AC outlets, a pilot light, 15 AMP circuit breaker and a 15 foot

power cord. The cabinet and its contents are located inside the test shelter.

Difference Between Models: Original Model

Tabulated Data:

APE No. 19780000
Unit of Issue Each

Installation Data:

EQUIPMENT CABINET

Width 28 in.
Height 55 in.
Depth: (with.. 23 in
cabinet doors
closed)

CAMERA COVER ASSEMBLY

Length 24-1/2 in.
Width 13-1/4 in.
Height 13-1/2 in.

Total Weight ... 360 lbs.

Utilities Required:

Electrical: 120 Volts AC,
20 AMPS (1 circuit
in test shelter)

120 Volts AC,
10 AMPS (2 circuits
in camera housing)

Production Capacity:

Not Available

Shipping Data:

Length Not available
Width Not available
Height Not available
Cube Not available
Weight Not available

Associated Equipment:

None

Kits:

None

APE 1980--UNIVERSAL RESISTANCE TEST INSTRUMENT

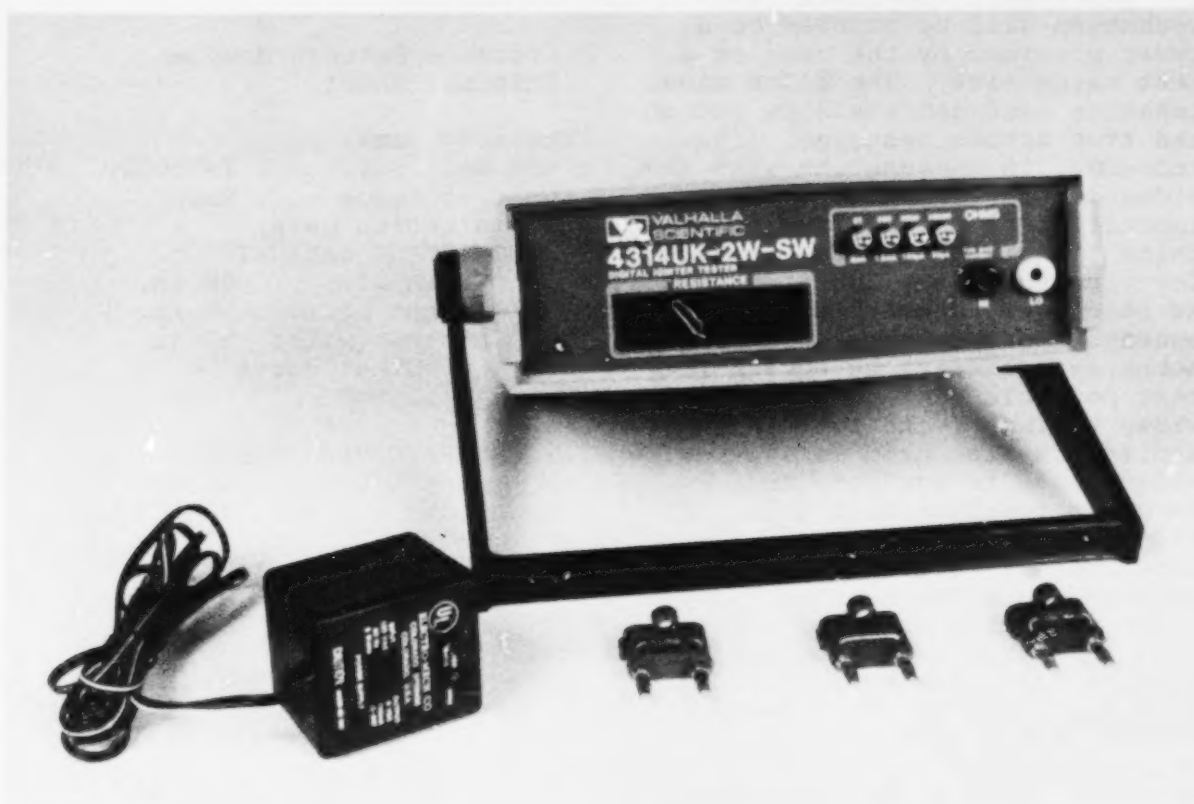


Figure 2-158.4

Use:

The resistance test instrument is used to measure resistance values of projectile electric primers, blasting caps and other detonating devices with specifications applicable to milliohm resolution in the 20 OHM range.

Description:

The resistance test instrument consists of a portable 4-1/2 digit (19999) ohmmeter providing precise resistance readings to a milliohm resolution in the 20 OHM range. The test current and failsafe

current is a 10 milliamperes maximum. Included with the instrument are three calibration resistance networks: Zero OHM resistance value, 0.5 OHM resistance value, and 10 OHM resistance value.

Difference Between Models:
Original Model

Tabulated Data:

APE No. 19800000
Unit of Issue Each
Installation Data:

OHMMETER
 Length 9 in.
 Width 8-1/2 in.
 Height 2-1/2 in.
 Weight 3-1/2 in.

Utilities Required:

Battery operated. Battery
 charger included for use with 115
 VAC, 50/60 Hz power outlet.

Production Capacity:
 Not applicable

Shipping Data:

Length Not available
 Width Not available
 Height Not available
 Cube Not available
 Weight Not available

Associated Equipment:
 None

Kits:
 None

APE 2000--MACHINE, VERTICAL PULL APART, ROTATING

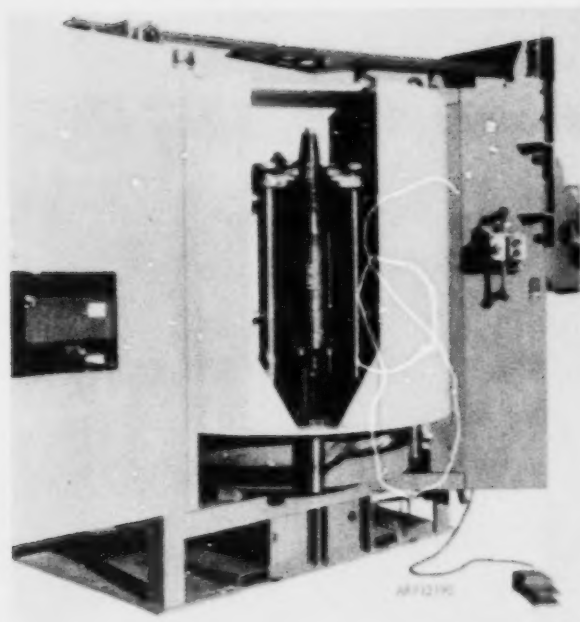


Figure 2-159.

Use:

The Vertical Pull Apart Rotating Machine is used to pull or separate fixed type artillery ammunition ranging in size from 40MM to 106MM with exception of Fin Stabilized Projectiles.

Description:

The machine consists of a frame mounting a four station turntable. Each station is independent of each other and is mechanically

operated. A projectile pickoff station removes the separated projectile from each pull apart station and exits the projectile from the working area. The machine is equipped with a protection barricade.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20000000
Unit of Issue Each

Installation Data:

Length 124 in.
 Width 73 in.
 Height 95 in.
 Weight 11,200 lbs

Utilities Required:

3 Phase, 208/220 VAC 30 Amp
 Outlet.

Production Capacity:

360 rounds per hour.

Shipping Data:

Length 134 in.
 Width 83 in.
 Height 105 in.
 Cube 676 cu ft
 Weight 11,400 lb

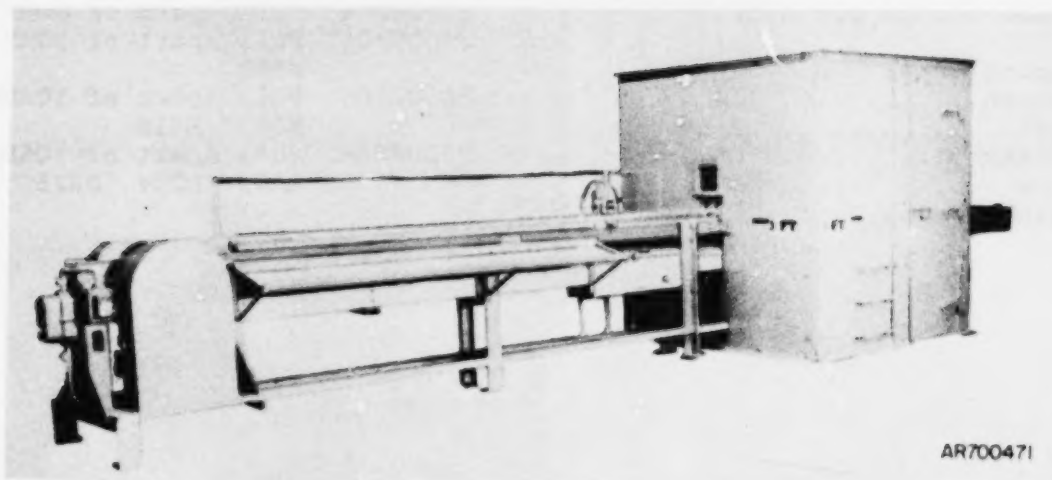
Associated Equipment:

None.

Kits:

2000E001 Basic Kit Accessories
 2000E002 Pull Apart of 40MM
 M81, M91, MK2, MK11
 2000E003 Pull Apart of 57MM
 M306, M307, M308
 2000E004 Pull Apart of 90MM M71
 2000E006 Pull Apart of 90MM M71
 M392
 2000E007 Pull Apart of 105MM
 M393, M416
 2000E008 Pull Apart of 105MM
 M323, M324, M325

APE 2001M1--MACHINE, BREAKDOWN, 20MM



AR700471

Figure 2-160.

Use:

The 20MM breakdown machine is used to break apart 20MM cartridges and separate the components.

Description:

The machine consists of a frame with a metal belt which carries the cartridges to a breakoff wedge where the projectile is forced out of the cartridge case. The projectiles exit the machine on a rubber belt. An operational shield is provided.

Difference Between Models:
Not available.

Tabulated Data:

APE No.	20010000M1
Unit of Issue	Each
Installation Data:	
Length	26 ft 3 in.
Width	79 in.
Height	79 in.
Weight	8441 lbs
Utilities Required:	
220/440 vac, 3 phase, 60 Hz.	

Production Capacity:
200 cartridges per minute.

Shipping Data:

MACHINE

Length 27 ft
Width 4 ft
Height 5 ft
Cube 540 cu ft
Weight 6000 lbs

SHIELD

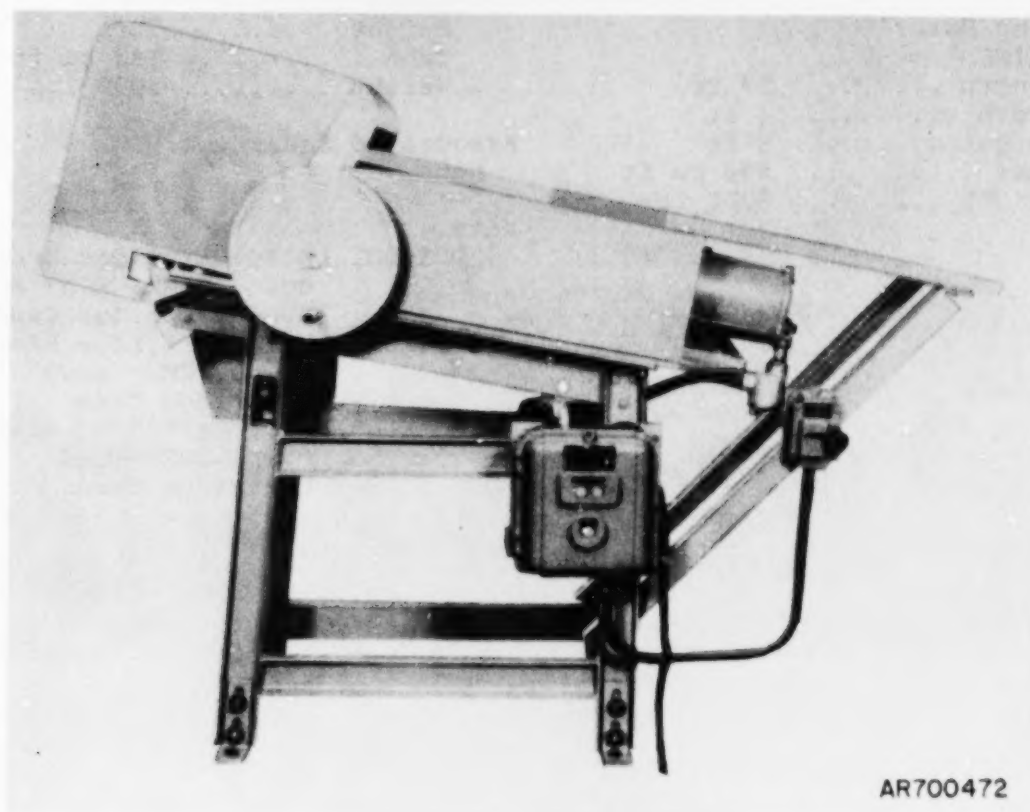
Length 7 ft
Width 7 ft
Height 7 ft
Cube 343 cu ft
Weight 3000 lbs

Associated Equipment:
None.

Kits:

2001E001 KIT, Cartridge Break-
down, 20MM; M187 and
M204 Cartridge Case
2001E002 KIT, Cartridge Break-
down, 20MM; M103
Cartridge Case
2001E003 KIT, Cartridge Break-
down, 20MM; M21
Cartridge Case

APE 2006M1--MACHINE, DELINKING, CAL .50



AR700472

Figure 2-161.

Use:

The caliber .50 delinking machine is used to extract caliber .50 cartridges from M2 and M9 links by pulling on the extraction groove.

Description:

The machine consists of a metal table with a delinking drum at one end of the table. The drum consists of a group of metal fingers which rotate and each finger pulls a cartridge from the belt as it passes the drum.

Difference Between Models:

The 2006M1 has a speed change on the machine.

Tabulated Data:

APE No. 20060000M1

Unit of Issue Each

Installation Data:

Length 72 in.

Width 34 in.

Height 54 in.

Weight 1272 lbs

Utilities Required:

220/440 vac, 3 phase, 60 Hz.

Production Capacity:

830 cartridges per minute.

Shipping Data:

Length 78 in.
Width 40 in.
Height 62 in.
Cube 112 cu ft
Weight 2350 lbs

Associated Equipment:

None.

Kits:

None.

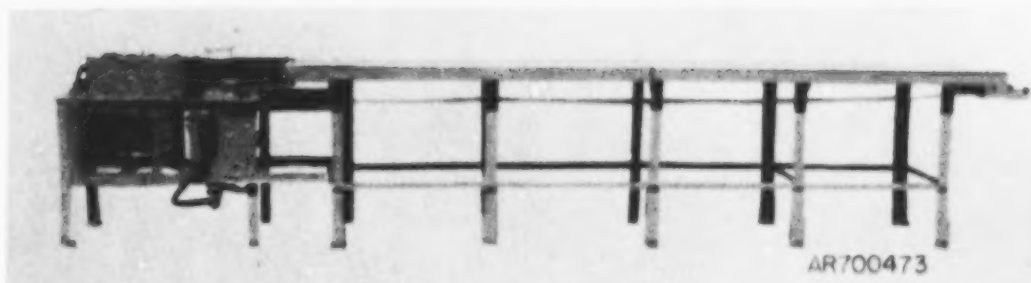


Figure 2-162.

Use:

The delinker-debelter is used to remove caliber .30 cartridges from web or metallic link belts. Cartridges are removed from the belts by pushing on the bullet tips.

Description:

The delinker-debelter consists of a metal frame, a positive cartridge belt feed, a wedge device for removing the cartridges from

the belts, and an electric motor. Also included are two tables with a belt running down the center to feed the ammunition belts to the delinker-debelter.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20080000
Unit of Issue Each

Installation Data:

Length 16 ft 8 in.
 Width 36 in.
 Height 39 in.
 Weight 1450 lbs

Utilities Required:

220/440 vac, 3 phase, 60 Hz.

Production Capacity:

950 cartridges per minute.

Shipping Data:

BOX

Length 78 in.
 Width 39 in.
 Height 19 in.

Cube 33.4 cu ft
 Weight 1018 lbs

CRATE

Length 50 in.
 Width 35 in.
 Height 48 in.
 Cube 48.6 cu ft
 Weight 788 lbs

Associated Equipment:

None.

Kits:

None.

APE 2009--MACHINE, DELINKING, CAL .30

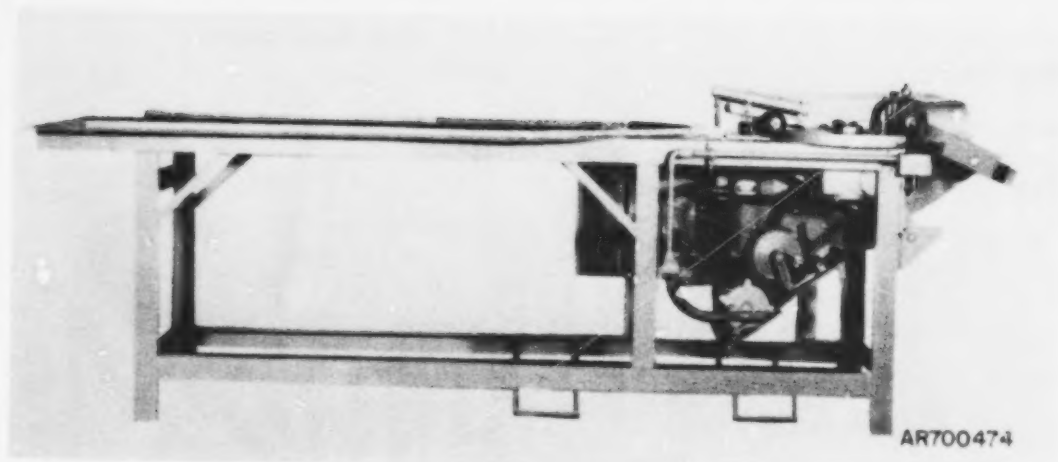


Figure 2-163.

Use:

The caliber .30 delinking machine is used to remove cartridges from metallic link belts by power operation. It will segregate a single round from a 4 to 1 ratio pack.

Description:

The machine consists of a metal table with the delinking mechanism mounted on one end. A delink plate holds the links as the cartridges are pulled free by two rotating rubber rollers. The delink plate carries the links forward to the link discharge chute.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20090000
Unit of Issue Each

Installation Data:

Length 108 in.
Width 36 in.
Height 40 in.
Weight 1378 lbs

Utilities Required:

115/230 vac, single phase, 60 Hz, 7.4/3.7 amp.

Production Capacity:

3000 cartridges per minute.
Straight Pack: 900 ctg. per minute ratio pack.

Shipping Data:

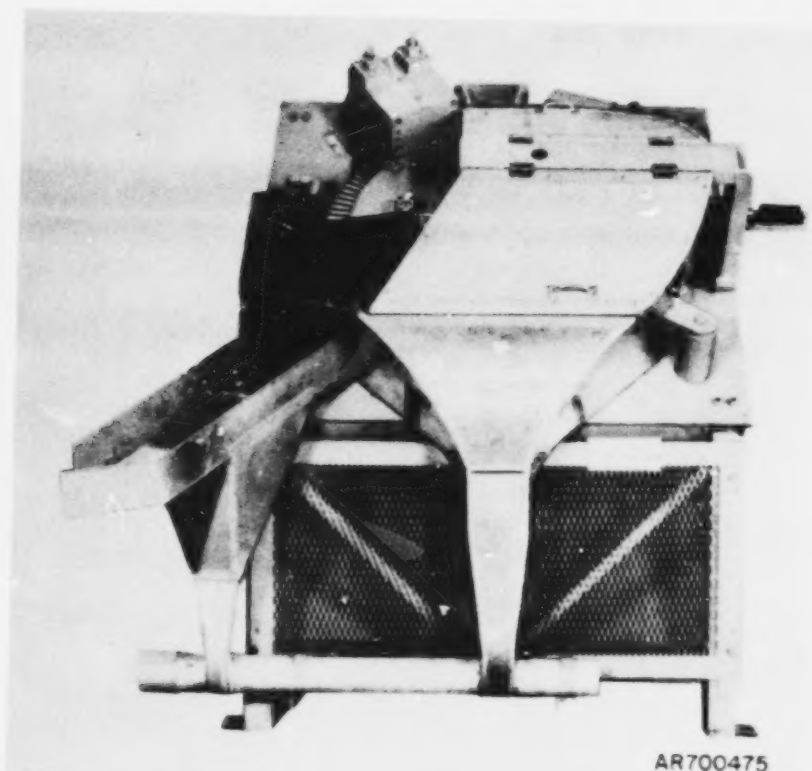
Length 130 in.
Width 43 in.
Height 52 in.
Cube 168.2 cu ft
Weight 1450 lbs

Associated Equipment:

None.

Kits:

None.



AR700475

Figure 2-164.

Use:

The rotary bullet pull machine is used to pull the bullet from the cartridge and segregate the bullet, the cartridge case, and the propellant.

Description:

The bullet pull consists of a metal frame, a cartridge wheel, a cartridge case cutter, a bullet breaker, a powder collection chute, three electric motors, and machine guards.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20110000
Unit of Issue Each

Installation Data:

Length 69 in.
Width 50 in.
Height 62 in.
Weight 1873 lbs

Utilities Required:

220/440 vac, 3 phase, 60 Hz.

Production Capacity:
660 cartridges per minute.

Associated Equipment:
None.

Shipping Data:

Length 64 in.
Width 56 in.
Height 69 in.
Cube 143.1 cu ft
Weight 2360 lbs

Kits:

2011E001 KIT, Caliber .30 Bul-
let Pull
2011E002 KIT, 7.62MM Bullet
Pull
2011E003 KIT, 5.56MM Bullet Pull

APE 2012--CARTRIDGE ALINER, CAL .30 AND 7.62MM

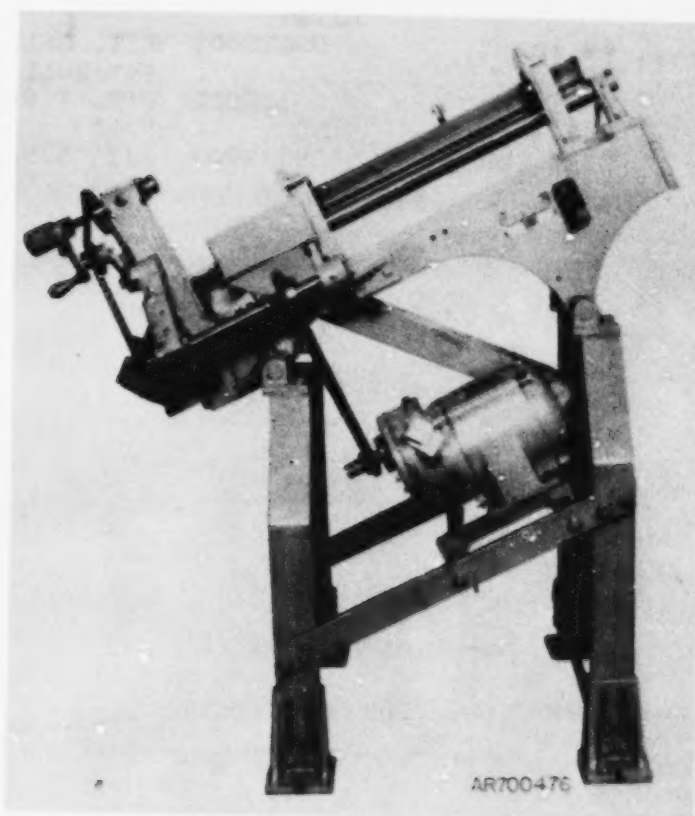


Figure 2-165.

Use:

The cartridge aliner is used to regiment and feed caliber .30 and 7.62MM cartridges to the rotary bullet pull machine.

Description:

The aliner consists of a metal frame with two power driven aligning rolls and a cartridge feed chute.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20120000

Unit of Issue Each

Installation Data:

Length 50 in.

Width 28 in.

Height 82 in.

Weight 750 lbs

Utilities Required:

208, 220/440 vac, 3 phase,
60 Hz.

Production Capacity:

660 cartridges per minute.

Shipping Data:

Length 68 in.
 Width 56 in.
 Height 64 in.
 Cube 141 cu ft
 Weight 1185 lbs

Associated Equipment:

APE 2011.

Kits:

2012E001 KIT, 7.62MM Feed Chute
 2012E002 KIT, 7.62MM Cartridge
 Guide
 2012E003 KIT, Molin Roll Stand

APE 2013M2--PANEL BOARD ASSEMBLY

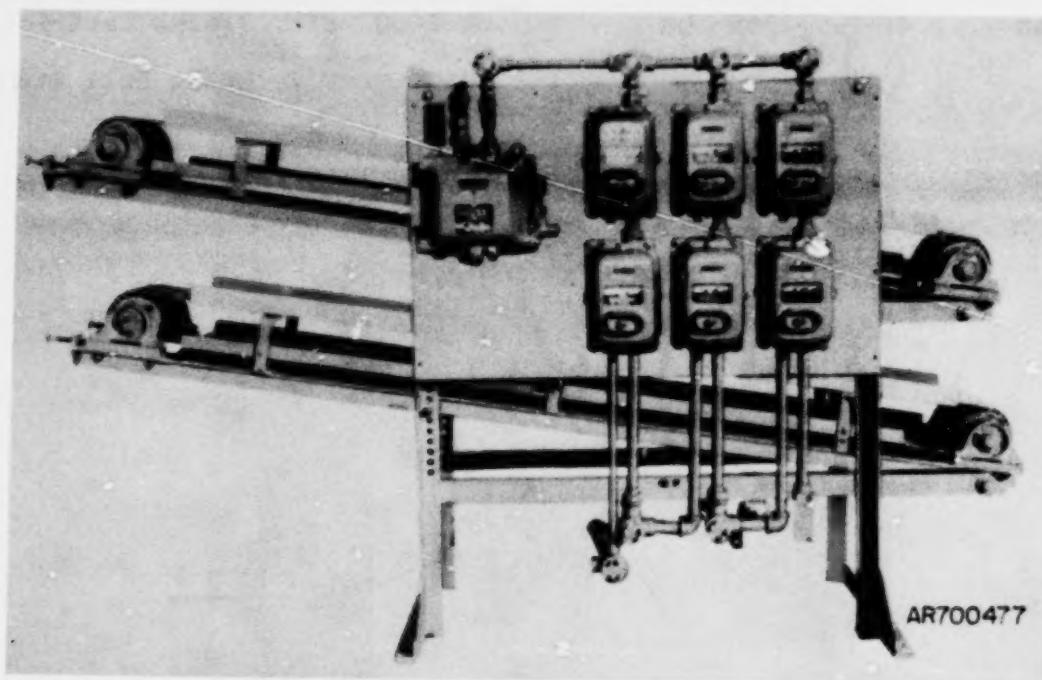


Figure 2-166.

Use:

The panel board assembly is used to centrally control several electrically operated machines in a small arms demilitarization line.

Description:

The panel board assembly consists of a metal panel on legs on which are mounted the switches controlling the machines in a small arms demilitarization line. Two short belt conveyors are mounted on the back of the conveyor.

Difference Between Models:
Not available.

Tabulated Data:

APE No. 20130000M2

Unit of Issue Each

Installation Data:

Length 96 in.

Width 27 in.

Height 59 in.

Weight 494 lbs

Utilities Required:

220/440 vac, 3 phase, 60 Hz,
30 amp.

Production Capacity:

Not applicable.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

APE 2011, 2012, 2015M1, 2016,
 2017, 2020, 2021M1, 2031, 2032.

Kits:

None.

APE 2015M1--MACHINE, AUTOMATIC FEED, CAL .50 DECORING



Figure 2-167.

Use:

The automatic feed machine is used to feed caliber .50 bullets into the decorating machine, APE 2126.

Description:

The machine consists of a metal frame, a bullet hopper, a feed chain, an overflow chute, a feed tube, an electric motor drive, and the necessary guards.

Difference Between Models:

The M1 model is equipped with a commercial overload coupling rather than a clutch.

Tabulated Data:

APE No. 20150000M1
Unit of Issue Each

Installation Data:

Length 80 in.
Width 36 in.
Height 87 in.
Weight 984 lbs

Utilities Required:

220/440 vac, 3 phase, 60 Hz.

Production Capacity:

275 bullets per minute.

Shipping Data:

Length 84 in.
Width 38 in.
Height 96 in.
Cube 173 cu ft
Weight 1400 lbs

Associated Equipment:

APE 2013M2, 2024, 2126.

Kits:

None.

APE 2016--MACHINE, ROTARY BULLET PULL, CAL .50

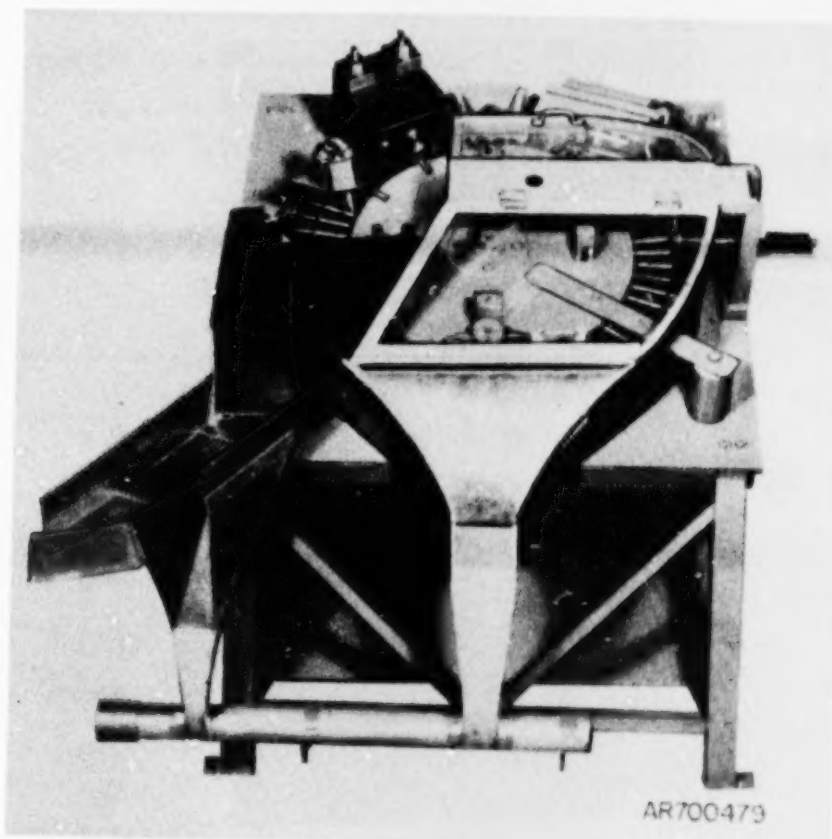


Figure 2-168.

Use:

The rotary bullet pull machine is used to pull the bullet from the cartridge case of caliber .50 cartridges. It segregates the bullet, the cartridge case, and the propellant.

Description:

The bullet pull consists of a metal frame, a cartridge wheel, a cartridge case cutter, a bullet breaker, a powder collection chute, three electric motors, and machine guards.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20160000

Unit of Issue Each

Installation Data:

Length 69 in.

Width 54 in.

Height 62 in.

Weight 2165 lbs

Utilities Required:

220/440 vac, 3 phase, 60 Hz.

Production Capacity:

320 cartridges per minute.

Shipping Data:

Length 64 in.
 Width 56 in.
 Height 69 in.
 Cube 143.1 cu ft.
 Weight 2665 lbs

Associated Equipment:

APE 2013M2, 2017.

Kits:

None.

APE 2017--CARTRIDGE ALINER, CAL .50

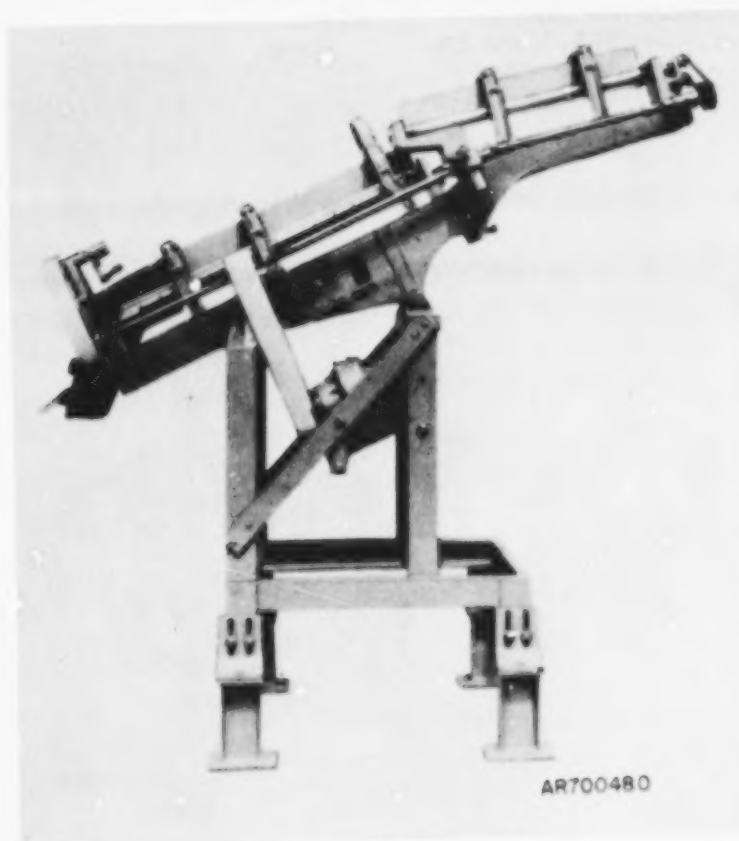


Figure 2-169.

Use:

The caliber .50 cartridge aliner is used to regiment caliber .50 cartridges and feed them to the rotary bullet pull, APE 2016, and other machines.

Description:

The aliner consists of a metal frame with four power driven aligning rolls and a cartridge feed chute.

Difference Between Models:
Original design.

Tabulated Data:

APE No.	20170000
Unit of Issue	Each
Installation Data:	
Length	100 in.
Width	40 in.
Height	102 in.
Weight	1870 lbs
Utilities Required:	
208-220/440 vac, 3 phase, 60 Hz.	
Production Capacity:	
320 cartridges per minute.	

Shipping Data:

Length 75 in.
Width 53 in.
Height 85 in.
Cube 196 cu ft
Weight 2300 lbs

Associated Equipment:

APE 2013M2, 2016.

Kits:

None.

APE 2020--FEEDER, VIBRATORY, CARTRIDGE

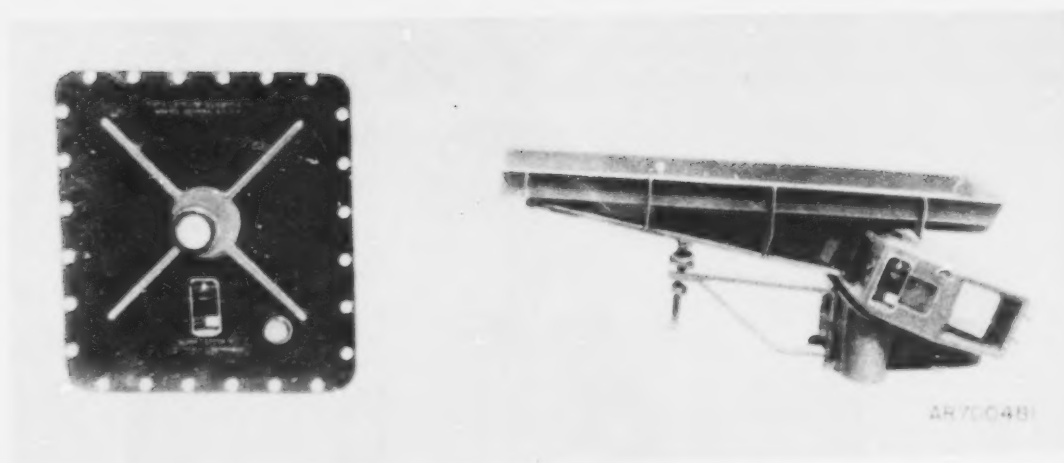


Figure 2-170.

Use:

The vibratory feeder is used to feed cartridges from a hopper to a conveyor or other machine at a variable rate. The feeder may be used for other materials.

Description:

The feeder is a commercial vibrating feeder with explosion proof construction. A rheostat is included to control the speed the material is fed from the vibratory feeder.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20200000

Unit of Issue Each

Installation Data:

Length 32 in.

Width 15 in.

Height 20 in.

Weight 370 lbs

Utilities Required:

115/230 vac, single phase, 60 Hz.

Production Capacity:

600 cartridges per minute.

Shipping Data:

Length 36 in.
Width 18 in.
Height 24 in.
Cube 9 cu ft
Weight 450 lbs

Associated Equipment:

APE 2021, 2031.

Kits:

None.

All Data on Pages 2-350 and 2-351, Including Figure 2-171 Deleted.

APE 2021M1--HOPPER, FEEDER, SINGLE (MODIFIED)

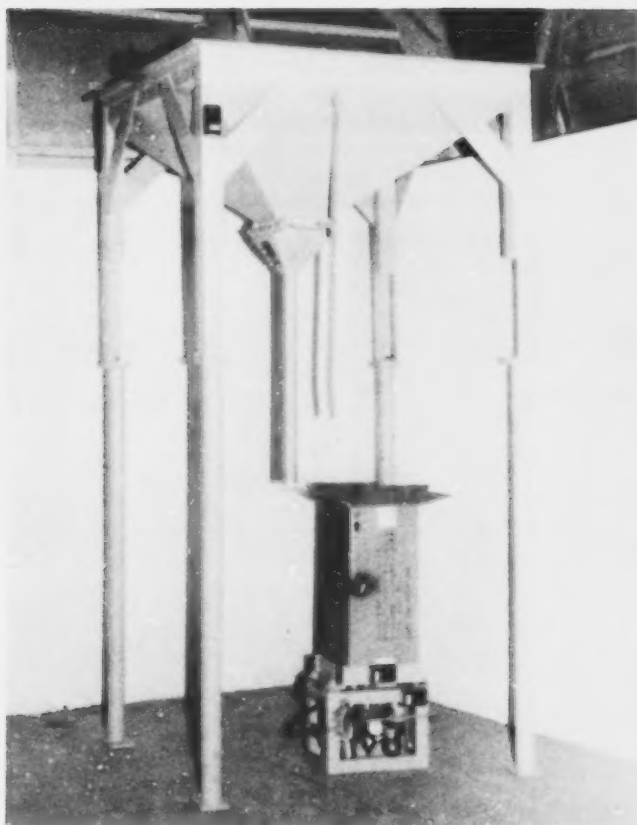


Figure 2-172.

Use:

The modified single vibrating feeder hopper is used to hold and dispense vermiculite. The vermiculite is used to pack the fiberboard containers that hold the polystyrene boxes that house a M74, 66MM incendiary rocket clip.

Description:

The unit consists of a modified APE 2021 Vibrating Feeder Hopper.

Difference Between Models:

The APE 2021M1 is an APE 2021 that has had the upper hopper assembly and hopper outlet feed door removed.

Tabulated Data:

APE No. 20210000M1

Unit of Issue Each

Installation Data:

Length 56 in.

Width 55-1/2 in.

Height 117 in.

Weight 380 lbs

Utilities Required:

None.

Production Capacity:

Renovation line production is
185 to 192 boxes per shift.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

None.

Kits:

2021E001 KIT, Vermiculite Dis-
penser

APE 2022--SEGREGATOR, METAL COMPONENT, CALIBER .50

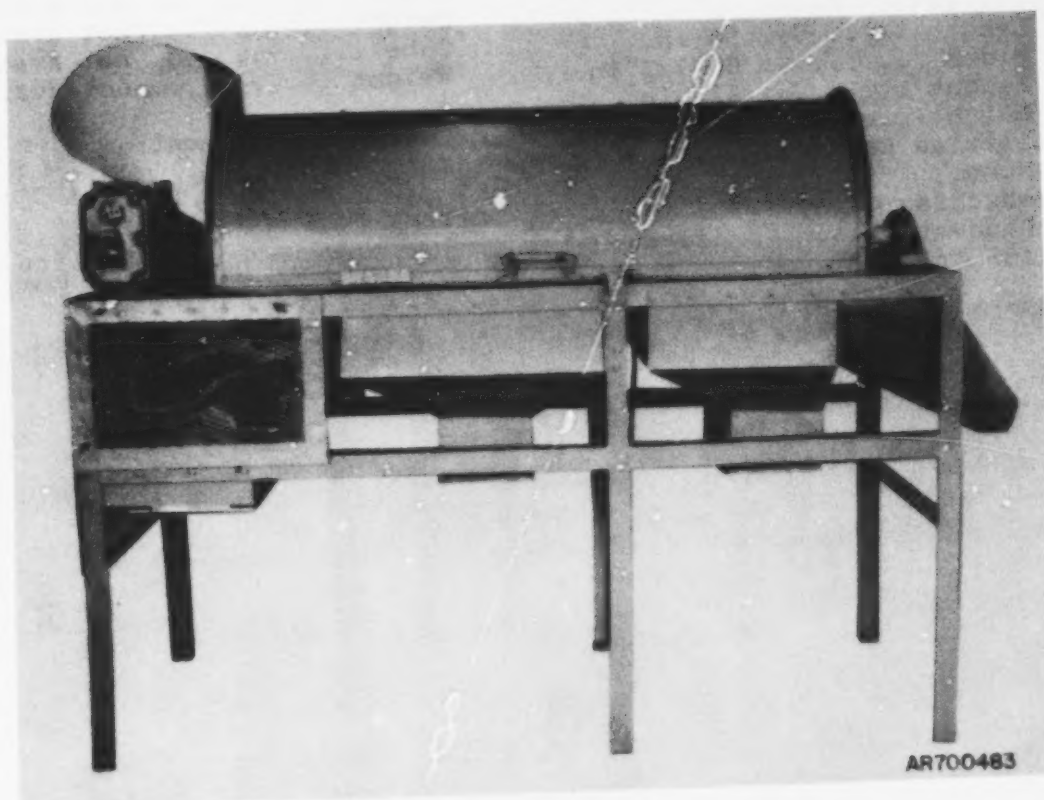


Figure 2-173.

Use:

The component segregator is used to separate the different types of metals recovered from caliber .50 ball and/or armor piercing decoring operations.

Description:

The machine consists of a cylindrical drum with properly spaced rods, feed and discharge chutes, and a drive motor.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20220000
Unit of Issue Each

Installation Data:

Length 83 in.
Width 28 in.
Height 63 in.
Weight 1247 lbs

Utilities Required:

115 vac, single phase, 60 Hz.

Production Capacity:

500 bullets per minute.

Shipping Data:

Length 95 in.
Width 37 in.
Height 73 in.
Cube 148.5 cu ft
Weight 1547 lbs

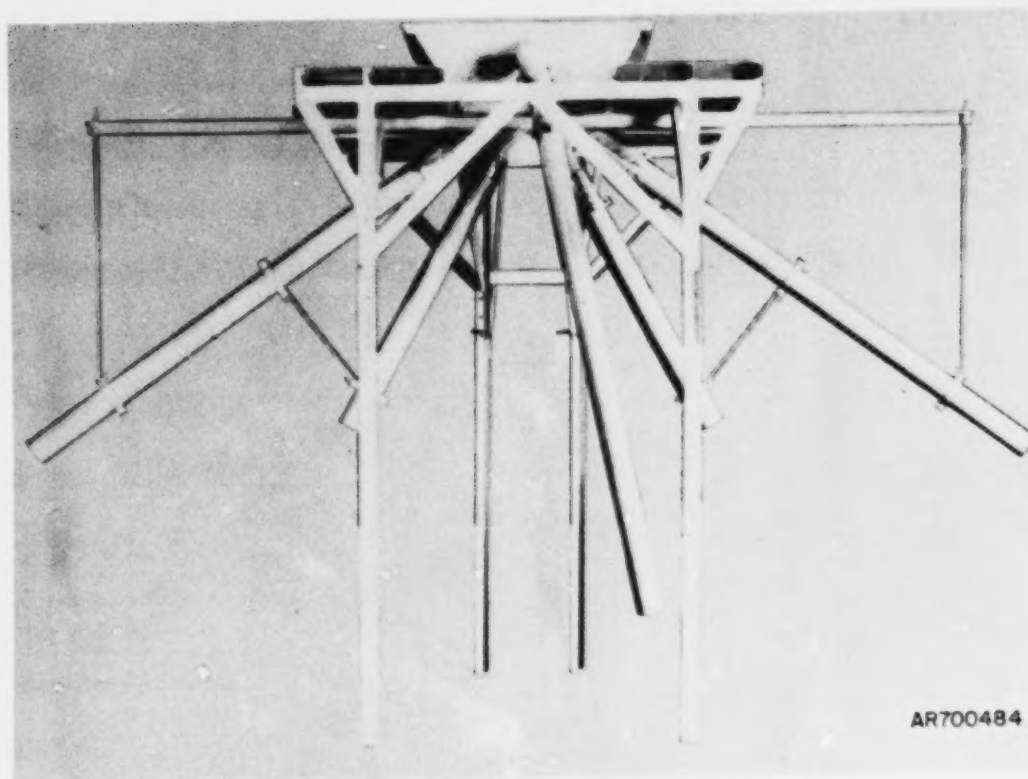
Associated Equipment:

APE 2126.

Kits:

None.

APE 2024--FEED HOPPER, CENTRAL



AR700484

Figure 2-174.

Use:

The central feed hopper is used to feed caliber .50 armor-piercing, ball, or incendiary bullets into four automatic feeders for decorating operations.

Description:

The hopper consists of a small hopper supported by metal legs with four feed tubes leading down from the hopper.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20240000
Unit of Issue Each

Installation Data:

Length 15 ft
Width 5 ft
Height 11 ft
Weight 1100 lbs

Utilities Required:

None.

Production Capacity:

Feeds 1 to 4 automatic feeders, APE 2015, simultaneously.

Shipping Data:

CRATE

Length 88 in.
Width 66 in.
Height 68 in.
Cube 237 cu ft
Weight 1442 lbs

BOX

Length 108 in.
Width 19 in.
Height 15 in.
Cube 18 cu ft
Weight 535 lbs

Associated Equipment:

APE 2015M1, 2032.

Kits:

None.

APE 2026--LINKING MACHINE, POWERED, CAL .50, M2 OR M9 LINK

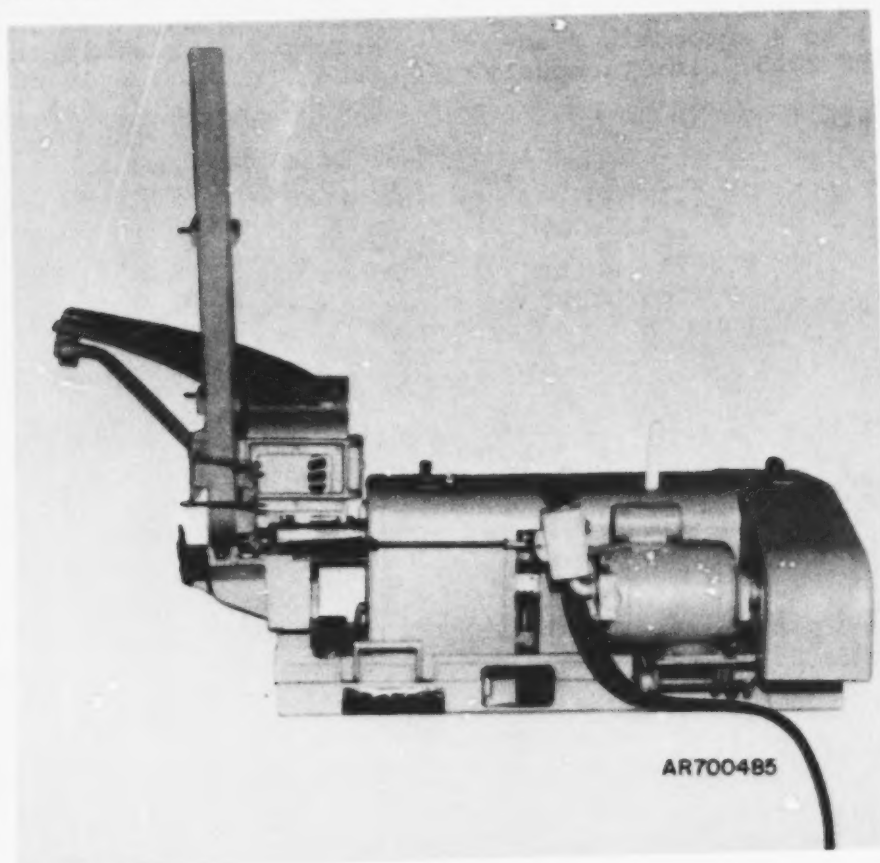


Figure 2-175.

Use:

The linking machine is used to link caliber .50 cartridges into M2 or M9 links by power operation. A delinking attachment may be attached to the machine for delinking cartridges from ammunition belts.

Description:

The linking machine consists of a metal frame, a drive mechanism, an indexing assembly, an ammunition tray, and a link chute. A sheet metal guard covers the machine.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20260000
Unit of Issue Each

Installation Data:

Length 53-3/4 in.
Width 33-5/8 in.
Height 36-1/2 in.
Weight 312 lbs

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

50 to 150 cartridges per minute.

Shipping Data:

Length 51 in.
Width 34 in.
Height 25 in.
Cube 25 cu ft
Weight 470 lbs

Associated Equipment:

None.

Kits:

2026E001 KIT, Cal .50 delinking
attachment

APE 2027M4--LINKING MACHINE, CAL .50, M15A2 LINK

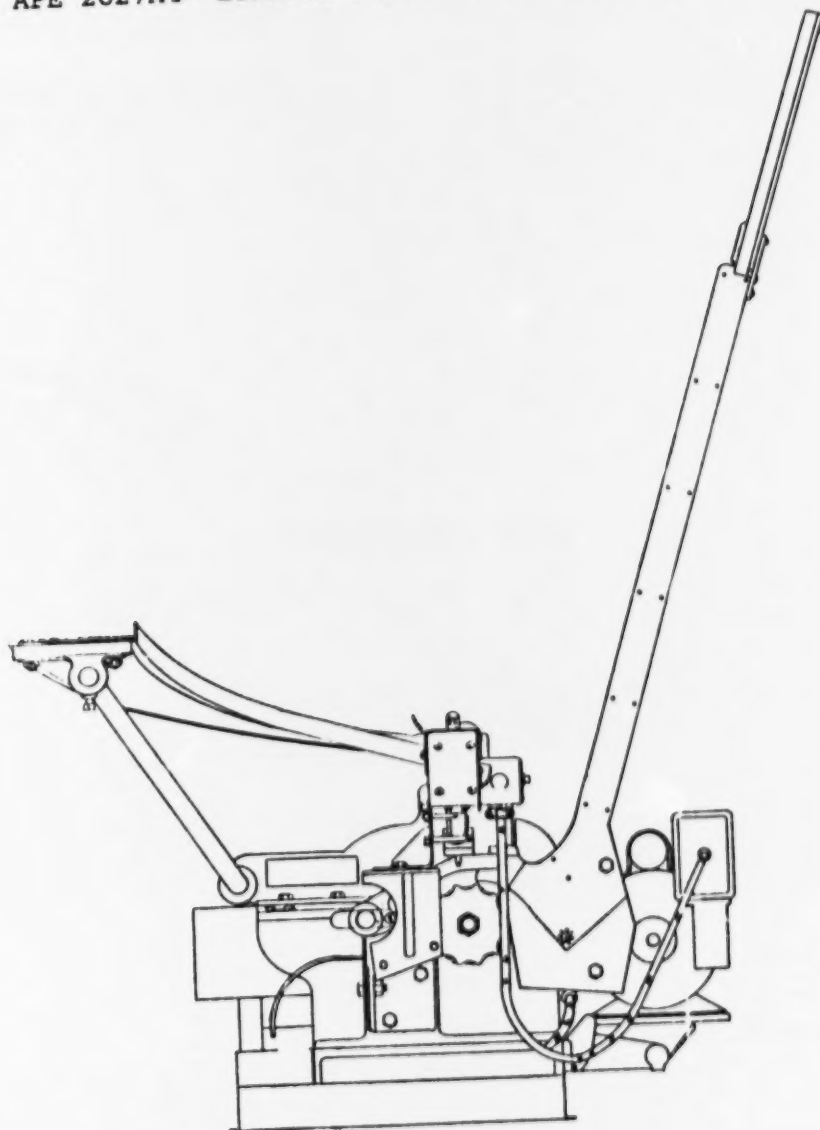


Figure 2-176.

Use:

The caliber .50 linking machine is used to link caliber .50 cartridges into M15A2 links. A tight link detector and marking assembly marks the cartridges requiring excessive force to insert them into the links.

Description:

The linking machine consists of a metal frame, a drive mechanism, an indexing assembly, an ammunition tray, a link chute, and a tight link detector and marking assembly. A sheet metal guard covers the moving parts of the machine.

Difference Between Models:
Earlier models were built for the
M15 and the M15A1 links.

Tabulated Data:

APE No. 20270000M4

Unit of Issue Each

Installation Data:

Length 53-3/4 in.

Width 39 in.

Height 50 in.

Weight 350 lbs

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

100 cartridges per minute.

Shipping Data:

Length 57 in.

Width 42 in.

Height 27 in.

Cube 37 cu ft

Weight 560 lbs

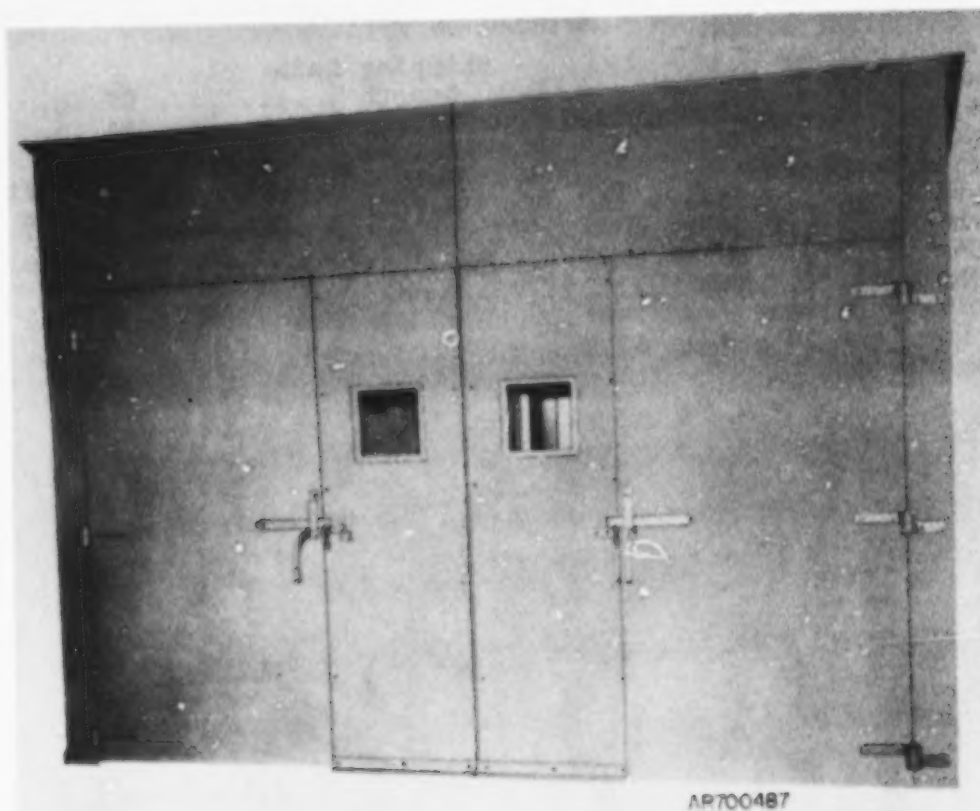
Associated Equipment:

None.

Kits:

None.

APE 2028M1--OPERATIONAL ENCLOSURE



AR700487

Figure 2-177.

Use:

The operation enclosure is used to provide protection for operating personnel when decoring bullets.

Description:

The enclosure is a metal shield constructed of 3/8-inch steel. It houses two decoring machines. Electrical interlocks are provided to prevent anyone entering the enclosure while the decoring machines are operating.

Difference Between Models:

The M1 has interlock system door latch.

Tabulated Data:

APE No. 20280000M1
Unit of Issue Each

Installation Data:

Length 12 ft
Width 6 ft
Height 8 ft 8 in.
Weight 5514 lbs

Utilities Required:

220 volts AC, 3 phase, 60 Hz,
15 amp.

Production Capacity:

Not applicable.

Shipping Data:

Length 116 in.
 Width 62 in.
 Height 20 in.
 Cube 170 cu ft
 Weight 5900 lbs

Length 90 in.
 Width 55 in.
 Height 30 in.
 Cube 86 cu ft

Associated Equipment:
 None.

Kits:
 None.

APE 2030--DELINKING MACHINE, CAL .50, M15A2 LINK

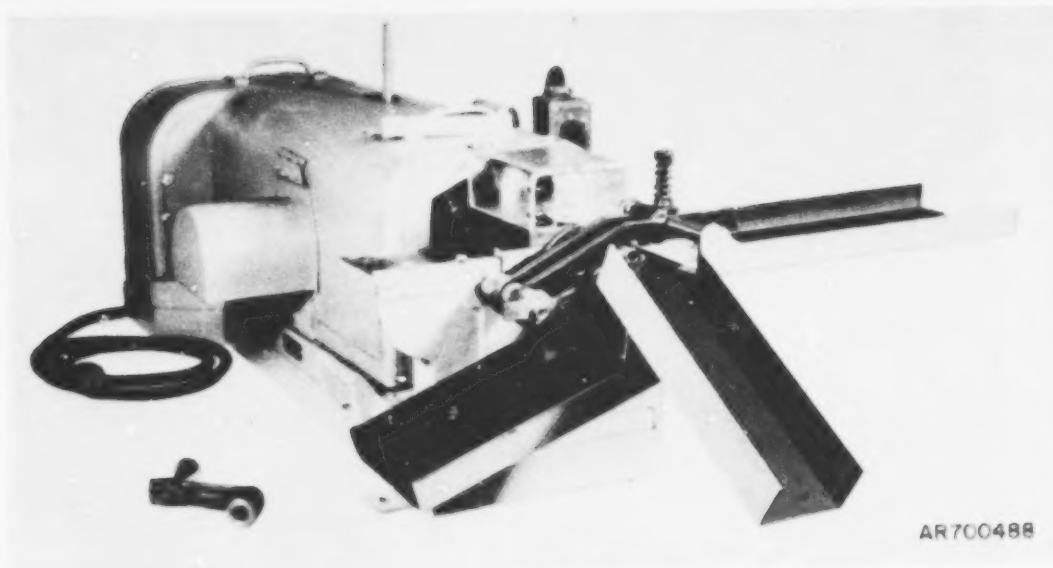


Figure 2-178.

Use:

The delinking machine is used to extract caliber .50 cartridges from M15A2 links by power operation.

Description:

The delinking machine consists of a metal frame, a drive mechanism, an indexing assembly, and the infeed and exit trays. A sheet metal guard covers the moving parts of the machine.

Difference Between Models:
Original design.

Tabulated Data:

APE No.	20300000
Unit of Issue	Each
Installation Data:	
Length	54 in.
Width	29 in.
Height	18 in.
Weight	295 lbs
Utilities Required:	
110 vac, single phase, 60 Hz.	
Production Capacity:	
50 to 150 cartridges per minute.	

Shipping Data:

Length 58 in.
Width 31 in.
Height 26 in.
Cube 27 cu ft
Weight 435 lbs

Associated Equipment:

None.

Kits:

None.

APE 2031--HOPPER, FEEDER (DOUBLE)

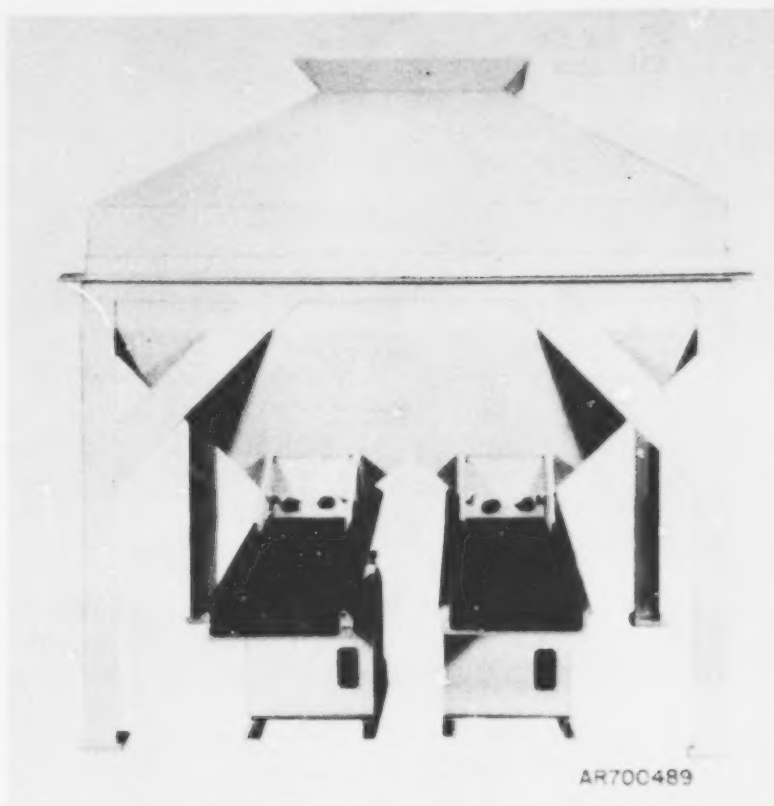


Figure 2-179.

Use:

The feeder hopper is used as a storage hopper from which small arms ammunition or other material can be fed onto two vibrator feeder trays.

Description:

The hopper is made of metal and has two openings at the bottom for feeding small arms ammunition. The cover has a viewing port and an opening for filling the hopper. The hopper is supported on four steel legs.

Difference Between Models:
Original design.

Tabulated Data:

APE No.	20310000
Unit of Issue	Each
Installation Data:	
Length	62 in.
Width	53 in.
Height	66 in.
Weight	440 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 66 in.
Width 57 in.
Height 72 in.
Cube 156 cu ft
Weight 640 lbs

Associated Equipment:

APE 2020, 2032.

Kits:

None.

APE 2032--CONVEYOR, POWERED BELT



AR700490

Figure 2-180.

Use:

The powered belt conveyor is used to convey small arms ammunition and other small items short distances.

Description:

The conveyor consists of two 10-foot frame sections, a drive end, an idler end, 8-inch wide belting, and the supporting legs. The conveyor may be set up for incline or horizontal use.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20320000
Unit of Issue Each

Installation Data:

Length 136 in.
Width 19 in.
Height 33 in. to
103 in.
Weight 1560 lbs

Utilities Required:
 208-220/440 vac, 3 phase, 60
 Hz.
 Production Capacity:
 Not applicable.

Shipping Data:

PACKAGE 1

Length 143 in.
 Width 48 in.
 Height 38 in.
 Cube 151 cu ft
 Weight 1635 lbs

PACKAGE 2

Length 65 in.
 Width 30 in.
 Height 37 in.
 Cube 41.8 cu ft
 Weight 305 lbs

Associated Equipment:

APE 2021, 2031.

Kits:

None.

APE 2038--DERUST MACHINE

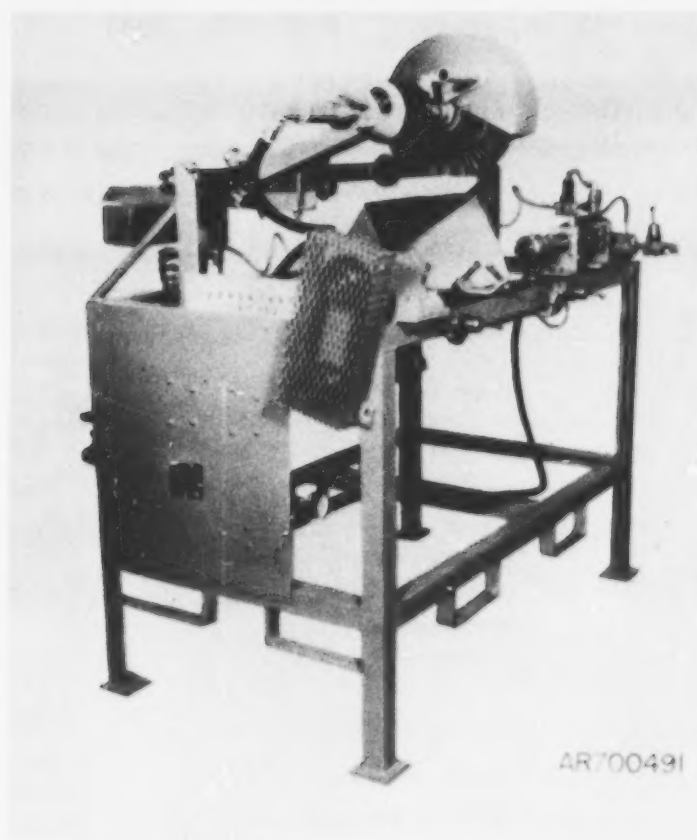


Figure 2-181.

Use:

The derust machine is used to remove rust from mortar projectiles with the fuze and fin assemblies removed. It will accommodate 60MM M49A2; 81MM M43A1, M56A1, M68, and M361; and 4.2-inch, M3A1 projectiles. A dust collector is supplied with the machine.

Description:

The machine consists of a metal frame with adapters to hold the projectiles. An air motor rotates the projectile. An air driven wire brush is balanced over the machine. The dust collector is connected to the machine by a flexible hose.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20380000
Unit of Issue Each

Installation Data:

DERUST MACHINE

Length 55 in.
Width 47 in.
Height 54 in.
Weight 585 lbs

DUST COLLECTOR

Length 37 in.
Width 24 in.
Height 37 in.
Weight 196 lbs

Utilities Required:

Air at 100 psi, 60 cfm, and
220 vac, 3 phase, 60 Hz.

Production Capacity:

Depends on size and condition
of projectile.

Shipping Data:

Length 85 in.
Width 57 in.
Height 68 in.
Cube 190.7 cu ft
Weight 1643 lbs

Associated Equipment:

None.

Kits:

None.

APE 2040--FIXTURE, IGNITION CARTRIDGE REMOVAL



Figure 2-182.

Use:

The ignition cartridge removal fixture is used to remove ignition cartridges from M149 and M170 fin assemblies of M374 series HE and M375 series smoke 81MM mortar ammunition.

Description:

The fixture consists of a metal base, a filter-regulator, control valves, a flash shield and a toggle clamp.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20400000
Unit of Issue Each
Installation Data:
Length 27-1/2 in.
Width 5-1/2 in.
Height 8-1/2 in.
Weight 8 lbs

Utilities Required:

Air at 110 psi.

Production Capacity:

180 cartridges per hour.

Shipping Data:

Length 29-1/2 in.
 Width 7-1/2 in.
 Height 10-1/2 in.
 Cube 1.35 cu ft
 Weight 29 lbs

Associated Equipment:

None.

Kits:

None.

APE 2041--EQUIPMENT, BAND TURNING

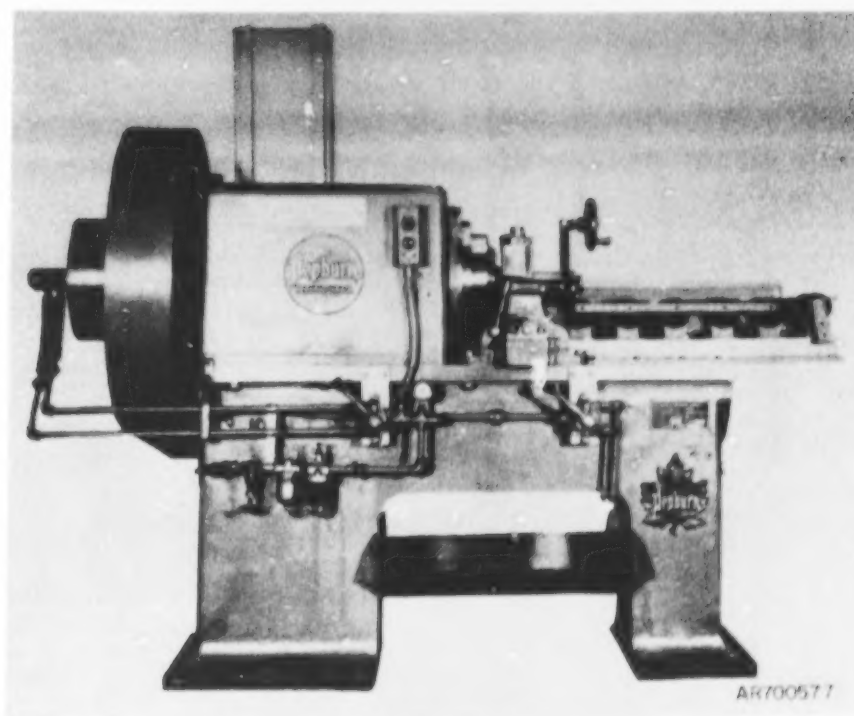


Figure 2-183.

Use:

The tooling and handling equipment is used to turn down the rotating band of the 155MM: M101 projectile changing it to the M107B2 projectile.

Description:

The equipment consists of a modified floor mounted engine lathe with a special cutting tool.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20410000
Unit of Issue Each

Installation Data:

Length 104 in.
Width 58 in.
Height 80 in.
Weight 5240 lbs

Utilities Required:

220/440 VAC 3 phase, 60 Hz,
25/13 amps; air at 80 psi and
7.5 cfm.

Production Capacity:

Not available.

Shipping Data:

Length 100 in.
 Width 70 in.
 Height 72 in.
 Cube 292 cu ft
 Weight 6145 lbs

Associated Equipment:

None.

Kits:

2041E001 KIT, Positioning Tool
 2041E002 KIT, Width Tool
 2041E003 KIT, Sharpening Jig

APE 2042--SEPARATOR, EXPLOSIVES, LIQUID TYPE, PORTABLE

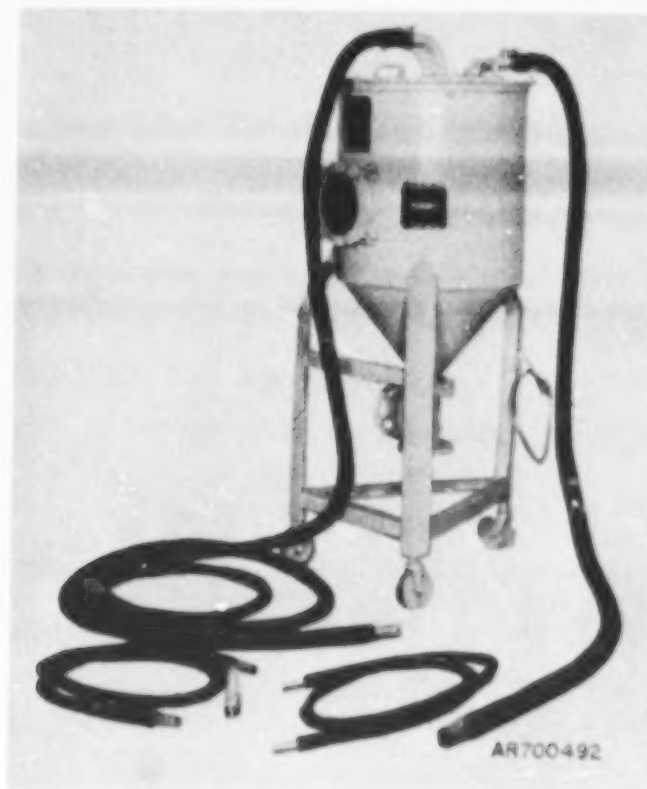


Figure 2-184.

Use:

The explosives separator is used to receive military type explosive dusts, mix the dust with water, and hold the mixture as a sludge until it is drained from the separator through a valve.

Description:

The upper portion of the separator body is cylindrical in shape and has an inspection port for viewing the inside of the body. The lower portion of the separator body is

conical in shape and has an explosive sludge drain valve connected to the bottom end of the cone. The separator is mounted on wheels and is equipped with hoses to connect it to a vacuum source.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20420000
Unit of Issue Each

Installation Data:

Length 28 in.
Width 28 in.
Height 62 in.
Weight 330 lbs

Utilities Required:

Vacuum source.

Production Capacity:

Not applicable.

Shipping Data:

Length 42 in.
Width 41 in.
Height 74 in.
Cube 73.7 cu ft
Weight 685 lbs

Associated Equipment:

APE 2043.

Kits:

None.

APE 2043--VACUUM CLEANER (ELECTRIC PORTABLE)

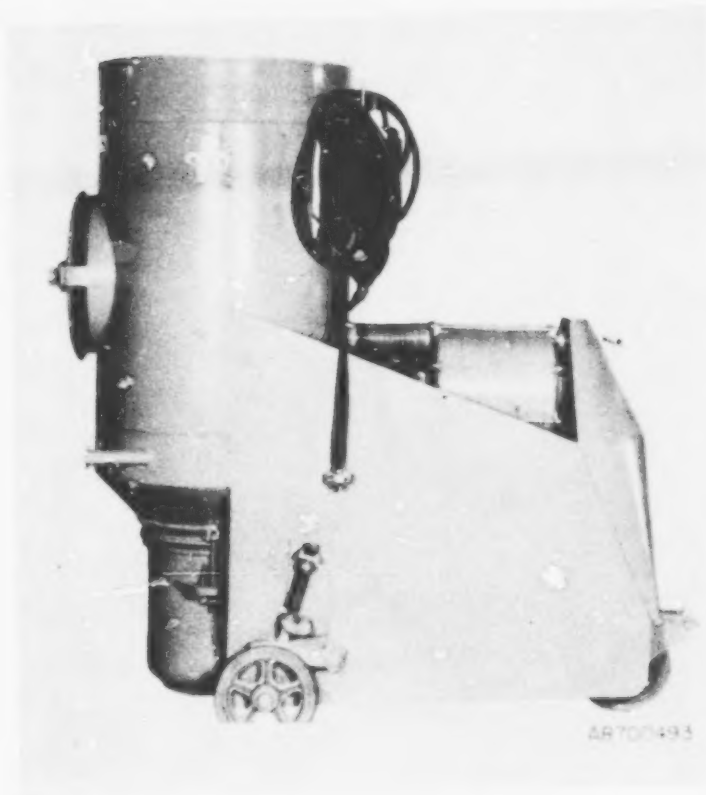


Figure 2-185.

Use:

The vacuum cleaner is used with military ammunition oriented equipment for the pick-up of explosive dusts and explosive material.

Description:

The cleaner is a modified commercial type with enclosed filter. It cleans by suction only and is powered by a 5-horsepower motor. The unit is mounted on a three wheel cart.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20430000
Unit of Issue Each
Installation Data:

Length 66 in.
Width 24 in.
Height 68 in.
Weight 510 lbs

Utilities Required:
220 vac, 3 phase, 60 Hz.
Production Capacity:
Not applicable.

Shipping Data:

Length 77 in.
 Width 43 in.
 Height 75 in.
 Cube 143.7 cu ft
 Weight 1099 lbs

Associated Equipment:

APE 2042.

Kits:

None.

APE 2044M1--SCALE, ZONE WEIGHING, 75MM THROUGH 120MM



Figure 2-186.

Use:

The zone weighing scale is used to zone weigh artillery projectiles ranging in size from 75MM through 120MM.

Description:

The scale is a bench model of the automatic indicating, portable platform, pendulum type. A metal stand is provided with each scale.

Difference Between Models:

The M1 dial face was changed to include a greater variety of projectile types. Double indicator replaced with single indicator.

Tabulated Data:

APE No.	20440000M1
Unit of Issue	Each
Installation Data:	
Length	31 in.
Width	25 in.
Height	51 in.
Weight	535 lbs
Utilities Required:	
None.	
Production Capacity:	
Not applicable.	

Shipping Data:

Length 49 in.
Width 32 in.
Height 66 in.
Cube 60 cu ft
Weight 600 lbs

Associated Equipment:

APE 2094.

Kits:

None.

APE 2045M1--SCALE, ZONE WEIGHING, 155MM THROUGH 8 INCH



Figure 2-187.

Use:

The zone weighing scale is used to zone weigh artillery projectiles ranging in size from 155MM through 8 inch.

Description:

The scale is a bench model of the automatic indicating, portable platform pendulum type. A metal stand is provided with each scale.

Difference Between Models:

The M1 had projectile size range changed from 155MM thru 240MM to 155MM thru 8 inch.

Tabulated Data:

APE No. 20450000M1
Unit of Issue Each

Installation Data:

Length 40 in.
Width 25 in.
Height 51 in.
Weight 909 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 58 in.
Width 41 in.
Height 63 in.
Cube 86.7 cu ft
Weight 1037 lbs

Associated Equipment:
APE 2094.

Kits:
None.

APE 2046--SCALE, OVER-UNDER, DIAL INDICATING



Figure 2-188.

Use:

The scale is used to weigh military explosive loaded items and/or equipment. The scale weighs in 0.01-pound increments.

Description:

The scale is a bench type and is set up to show the exact weight at the center of the dial. If the pointer is to the left of center, the weight is under the desired amount; if it is to the right of center, the weight is greater than the desired amount.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20460000

Unit of Issue Each

Installation Data:

Length 41 in.

Width 35 in.

Height 60 in.

Weight 400 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube 50 cu ft
 Weight 732 lbs

Associated Equipment:

None.

Kits:

None.

All Data on Pages 2-386 and 2-387 Deleted.

APE 2050M1--TABLE, SURVEILLANCE WORK

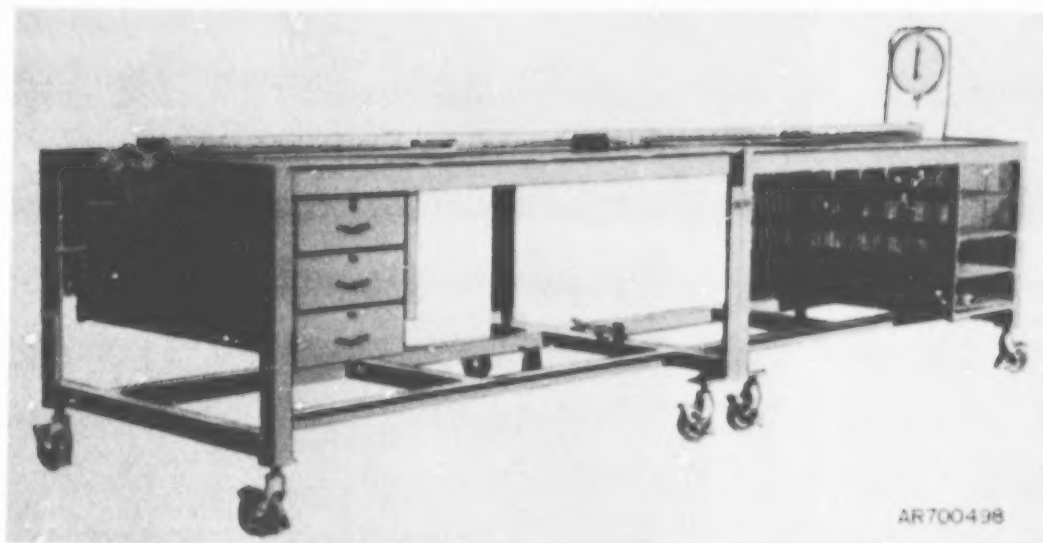


Figure 2-189.

Use:

The surveillance work table is used to perform surveillance tests of small arms ammunition. It provides work area for gaging operations and equipment for drop weight tests and spring tension tests on metallic link belts.

Description:

The table consists of two mating sections. The two sections when joined make a table 4 feet wide and 13-1/2 feet long. The table is equipped with a winch assembly

and a scale assembly. A hinged plastic guard extends the full length of the table. The table is mounted on eight locking casters.

Difference Between Models:

APE 2050M1 has wider guard assemblies, narrower plywood boards and narrower storage area for the plywood boards.

Tabulated Data:

APE No. 20500000M1
Unit of Issue Each

Installation Data:

Length 14-1/2 ft
 Width 4 ft
 Height 5 ft
 Weight 1260 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

SECTION I

Length 93 in.
 Width 53 in.
 Height 41 in.

Cube 117 cu ft
 Weight 1064 lbs

SECTION II

Length 93 in.
 Width 53 in.
 Height 41 in.
 Cube 117 cu ft
 Weight 998 lbs

Associated Equipment:

None.

Kits:

2050E001 KIT, 20MM Inspection

APE 2052--TOOL, CAVITY RESIZING

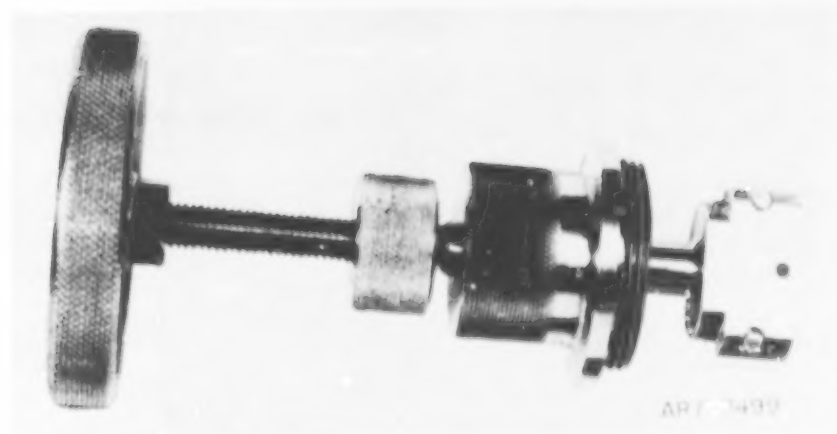


Figure 2-190.

Use:

The cavity resizing tool is used to ream the fuze cavity of projectile/cartridge with 2 inch dia. threads for assembly of fuzewell liner. The tool is hand operated.

Description:

The tool consists of a handwheel, an adapter comparable to a nose plug, a fly cutter blade for the reaming process, and an adjustable stop nut to control the depth of cut. The handwheel, stop nut, and adapter are knurled for ease in handling.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20520000
Unit of Issue Each
Installation Data:
Length 3-1/2 in.
Width 3-1/2 in.
Height 7-1/8 in.
Weight 3.5 lbs

Utilities Required:
None.

Production Capacity:
Varies with operator and condition of cartridge being processed.

Cube 0.13 cu ft
Weight 4 lbs

Associated Equipment:
None.

Shipping Data:
Length 5 in.
Width 5 in.
Height 9 in.

Kits:
None.

APE 2053M2--DEVICE, AIR SAMPLING

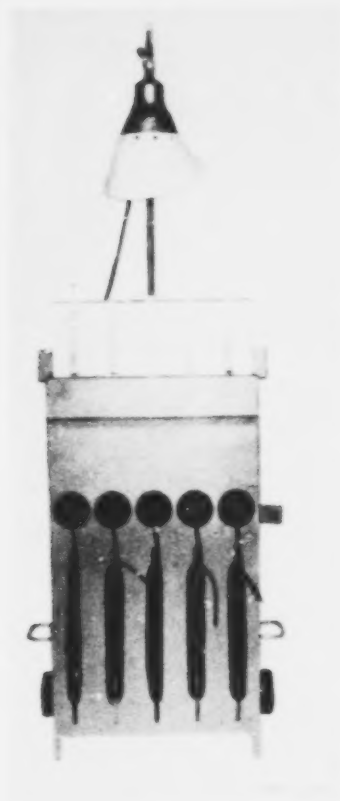


Figure 2-191.

Use:

The air sampling device is used to test for leaks in toxic chemical filled munitions.

Description:

The device consists of a metal cabinet with a vacuum pump mounted inside the cabinet. The pump draws samples through five separate rubber tubes. A work area is provided for sample tubes on the top of the cabinet. The cabinet is mounted on wheels for portability.

Difference Between Models:

APE 2053 was only able to draw samples through one tube and was not mounted on wheels. APE 2053M1 differs from APE 2053 in that it has five sampling tubes and mounts for battery pack for miners lamps. APE 2053M2 differs from APE 2053M1 in that it has an explosion proof incandescent light replacing the dc battery pack and miners lamps.

Tabulated Data:

APE No. 20530000M2
Unit of Issue Each

Installation Data:

Length 32 in.
 Width 31-1/2 in.
 Height 67 in.
 Weight 190 lbs

Utilities Required:

120 vac, single phase, 60 Hz,
 6.8 amp.

Production Capacity:

Not applicable.

Shipping Data:

Length 64 in.
 Width 34 in.
 Height 29 in.
 Cube 37 cu ft
 Weight 410 lbs

Associated Equipment:

None.

Kits:

2053E001 Holder, Detector Ticket

APE 2054--LINKING MACHINE, FIVE STATION, CAL .50



Figure 2-192.

Use:

The caliber .50, five station, linking machine is used to assemble caliber .50 cartridges and M2 or M9 metallic links into ammunition belts of any desired length. Cartridges can be arranged in a specified sequence according to cartridge type.

Description:

The machine consists of five cartridge chutes, a cartridge conveyor, an automatic link feed mechanism, a linking mechanism, and a cartridge belt conveyor.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20540000

Unit of Issue Each

Installation Data:

Length 20 ft

Width 40 in.

Height 60 in.

Weight 2280 lbs

Utilities Required:

220 vac, 3 phase, 60 Hz.

Production Capacity:

500 cartridges per minute.

Shipping Data:

Length 204 in.
Width 46 in.
Height 74 in.
Cube 401.8 cu ft
Weight 2873 lbs

Associated Equipment:

None.

Kits:

None.

APE 2055--MACHINE, OBLITERATING

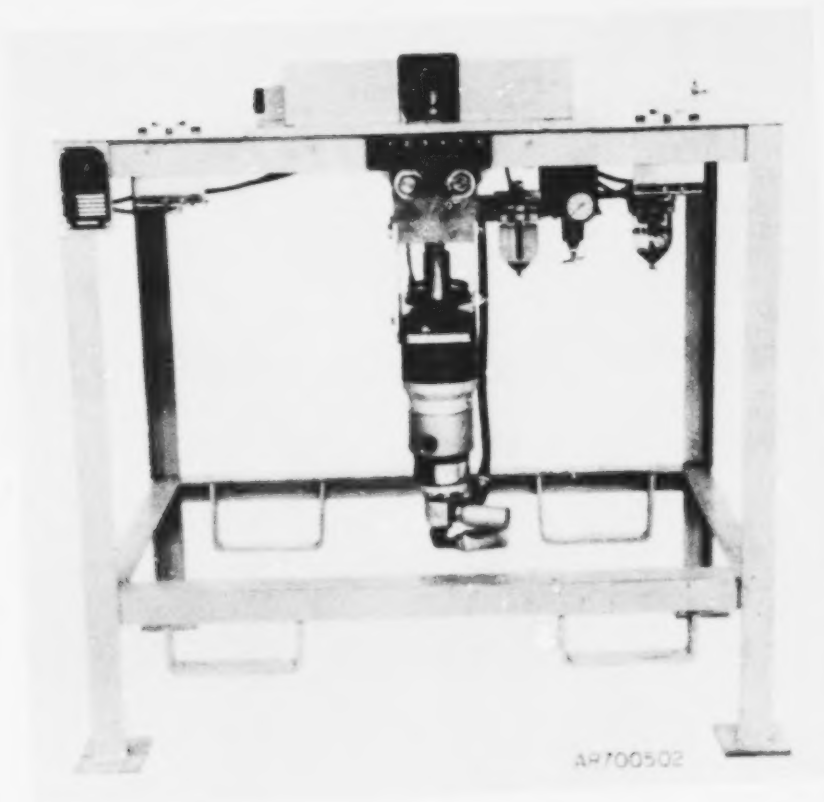


Figure 2-193.

Use:

The obliterating machine is used for obliterating stamped markings from the body of nose type fuzes.

Description:

The machine consists of a metal table with an air motor mounted below the table. An obliterating disk is mounted on each side of the fuze holder. The air motor turns the disks and fuze holder to obliterate the markings.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20550000
Unit of Issue Each

Installation Data:

Length 40-1/2 in.
Width 24-1/2 in.
Height 41 in.
Weight 380 lbs

Utilities Required:

Air at 90 psi and 40 cfm.

Production Capacity:

Not established.

Shipping Data:

Length 48 in.
Width 32 in.
Height 51 in.
Cube 45.3 cu ft
Weight 680 lbs

Associated Equipment:

None.

Kits:

None.

APE 2057--MACHINE, PNEUMATIC STAKING

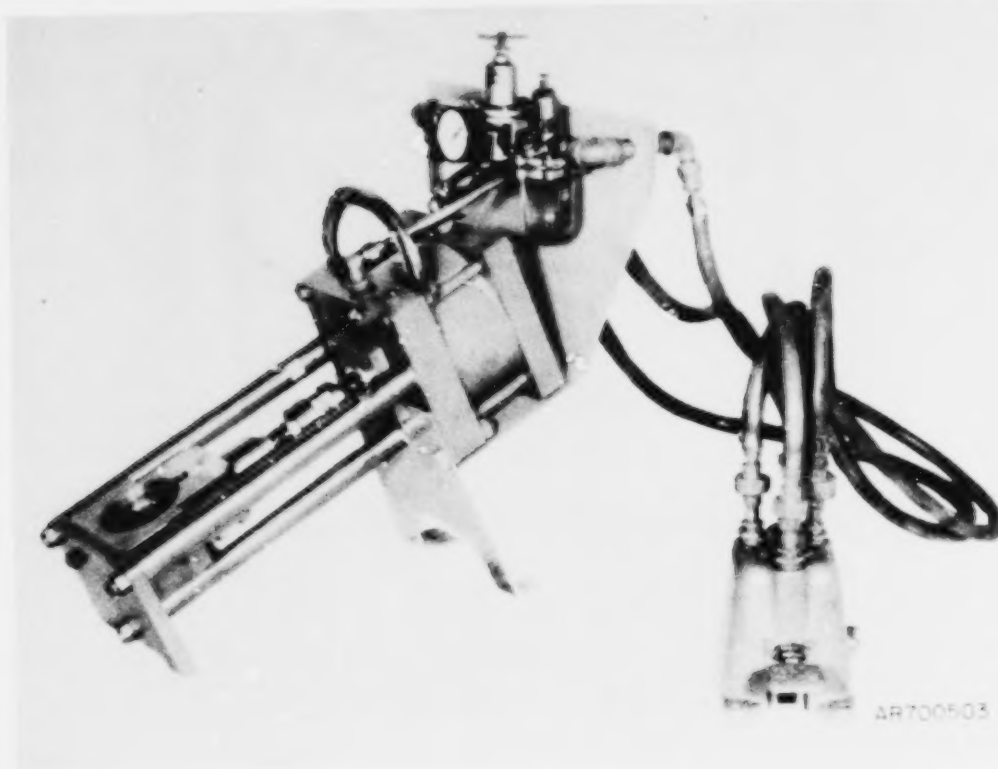


Figure 2-194.

Use:

The pneumatic staking machine is used to stake a booster to the body of nose type fuzes.

Description:

The machine consists of an 8-inch air cylinder with a punch assembly attached, a fuze holding block, a foot operated air valve, and a filter regulator lubricator.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20570000
Unit of Issue Each

Installation Data:

Length 36 in.
Width 18 in.
Height 27 in.
Weight 220 lbs

Utilities Required:

Air at 80 psi and 4 cfm.

Production Capacity:

Depends on operator skill.

Shipping Data:

Length 40 in.
Width 21 in.
Height 31 in.
Cube 15.1 cu ft
Weight 318 lbs

Associated Equipment:

None.

Kits:

None.

APE 2059--MACHINE, DECLIPPING

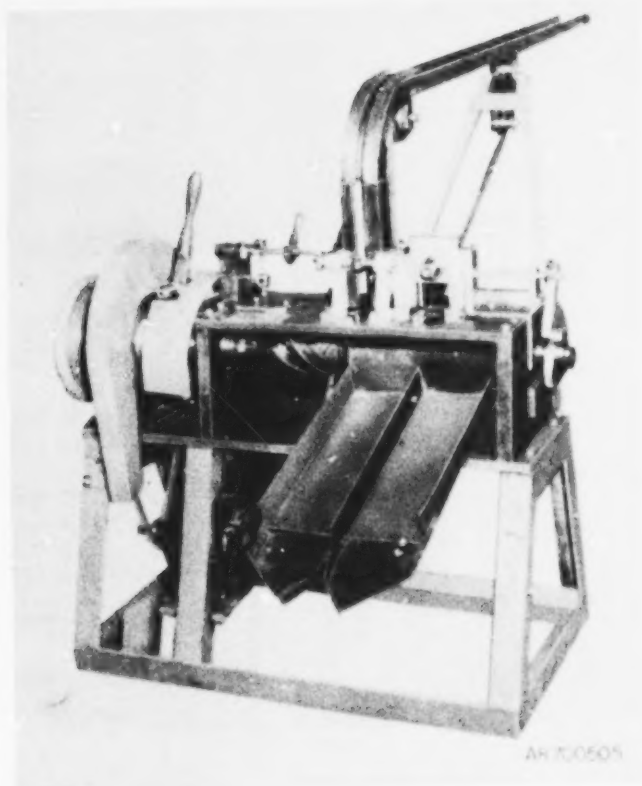


Figure 2-195.

Use:

The declipping machine is used to remove caliber .30 cartridges from five round and eight round clips and 7.62MM cartridges from five round clips.

Description:

The machine consists of a metal frame, a clip feed chute, a declipping mechanism, discharge chutes, and an electric motor drive.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20590000
Unit of Issue Each

Installation Data:

Length 69 in.
Width 33 in.
Height 41 in.
Weight not available

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

75 clips per minute.

Shipping Data:

Length 56 in.
Width 31 in.
Height 44 in.
Cube 44.2 cu ft
Weight 640 lbs

Associated Equipment:

None.

Kits:

None.

APE 2060--LINK-DELINK MACHINE, 20MM

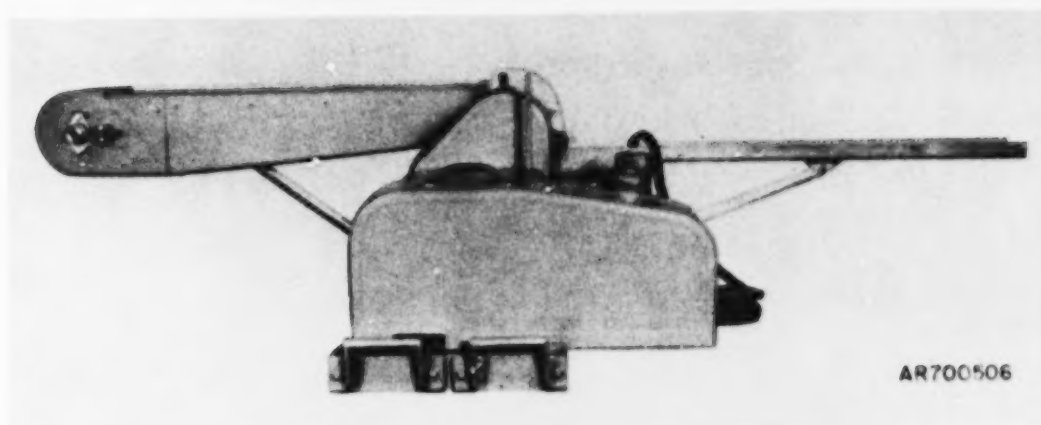


Figure 2-196.

Use:

The 20MM link-delink machine is used to mechanically assemble 20MM cartridges into M12 metallic link belts. It may also be used to remove 20MM cartridges from M12 metallic link belts.

Description:

The machine consists of a cast metal base with a power drive, an indexing mechanism, a cartridge feed conveyor, a link feed tray, and a sheet metal guard.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20600000

Unit of Issue Each

Installation Data:

Length 88 in.

Width 44 in.

Height 20 in.

Weight 300 lbs

Utilities Required:

115 vac, single phase, 60 Hz.

Production Capacity:

56 to 168 cartridges per
minute.

Shipping Data:

Length 96 in.
Width 48 in.
Height 24 in.
Cube 64 cu ft
Weight 627 lbs

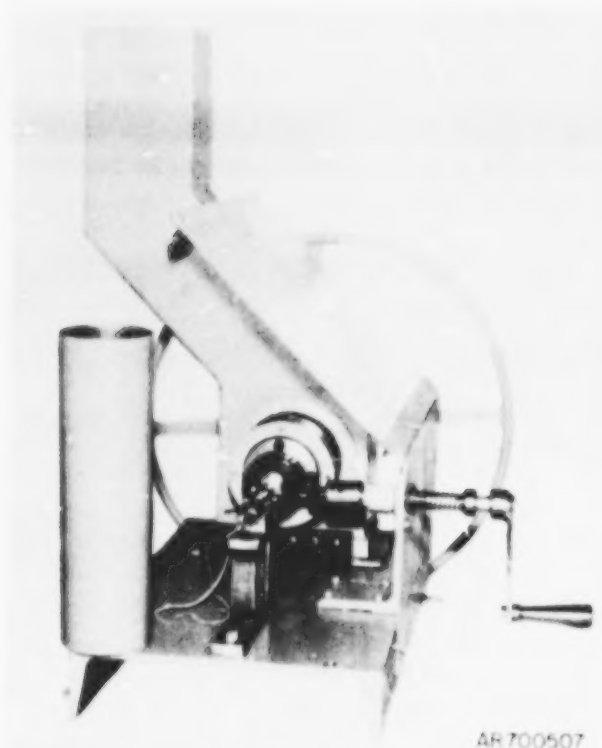
Associated Equipment:

None.

Kits:

None.

APE 2061--ASSEMBLY AND DISASSEMBLY MACHINE, M605 MINE FUZE



AR 700507

Figure 2-197.

Use:

The M605 mine fuze assembly and disassembly machine is used to assemble and torque and to disassemble the loading assembly from the head assembly of M605 mine fuzes. It is hand operated.

Description:

The machine has a metal frame with an exhaust stack and a shield mounted on it. A handwheel supplies power for assembly and disassembly. Holding fixtures for the fuze are provided.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20610000

Unit of Issue Each

Installation Data:

Length 28 in.

Width 23 in.

Height 29 in.

Weight 116 lbs

Utilities Required:

None.

Production Capacity:

Depends on condition of fuzes.

Shipping Data:

Length 30 in.
Width 20 in.
Height 26 in.
Cube 9 cu ft
Weight 175 lbs

Associated Equipment:

None.

Kits:

None.

APE 2062--TEST SET, ULTRASONIC

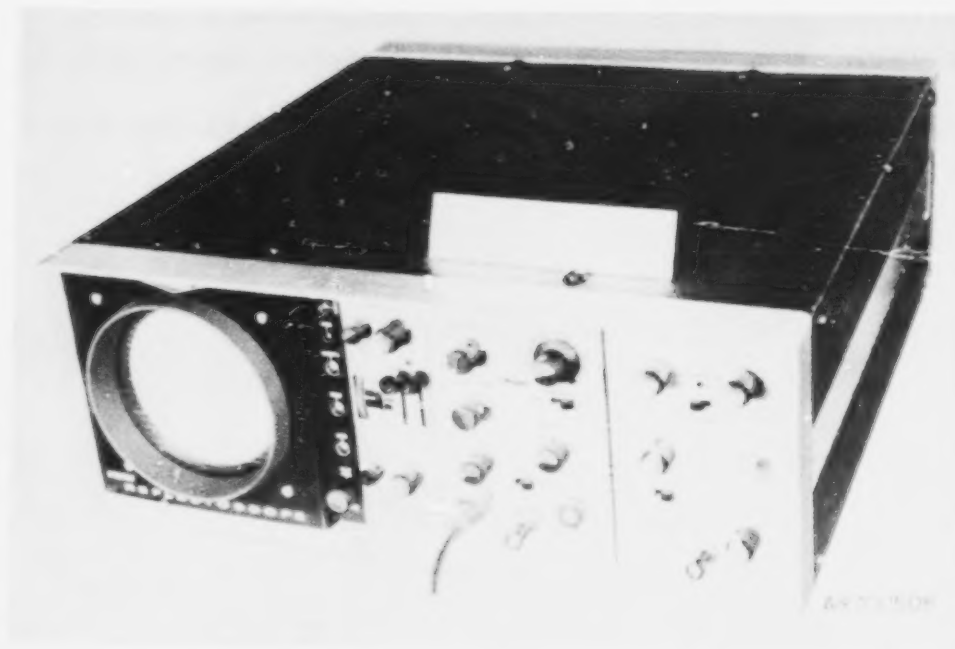


Figure 2-198.

Use:

The ultrasonic test set is used for rapid and simple non-destructive testing of materials by contact or immersion testing through the use of interchangeable plug-in search units.

Description:

The test set is a single channel test instrument with a buzzer and a flashing light signal to indicate flaws in the items being tested.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20620000

Unit of Issue Each

Installation Data:

Length 20 in.

Width 20 in.

Height 7 in.

Weight 45 lb

Utilities Required:

115 $\pm$ 10 vac, single phase,
50/60 Hz, 2 amp.

Production Capacity:
Not applicable.

Associated Equipment:
None.

Shipping Data:

Length 29 in.
Width 26 in.
Height 13 in.
Cube 6 cu ft
Weight 66 lb

Kits:

2062E001 KIT, 66MM: M72 LAW
Fuze Closure
2062E002 KIT, Hollow Core Eye-
bolt Lifting Plug

All Data on Pages 2-408 and 2-409, Including Figure 2-199 Deleted.

APE 2068M2--MACHINE, BALTOGRAPH



Figure 2-200.

Use:

The baltograph machine is used to inspect parts, components, and finished assemblies for defects. Items may range from thin walled aluminum and magnesium castings to 4-inch thick steel parts.

Description:

The machine consists of a cylindrical x-ray head, a control panel, and connecting cables. These items are stored in two trunks.

Difference Between Models:

The APE 2068M1 has been modified to operate with a safety interlock system. The APE 2068M2 is procured with the interlock system built into the machine, not added on.

Tabulated Data:

APE No. 20680000M2

Unit of Issue Each

Installation Data:

X-RAY HEAD TRUNK

Length 50 in.

Width 20 in.

Height 21 in.

Weight 238 lbs

CONTROL PANEL TRUNK

Length 32 in.
Width 16 in.
Height 14 in.
Weight 95 lbs

Utilities Required:

115 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

X-RAY HEAD TRUNK

Length 50 in.
Width 20 in.
Height 21 in.

Cube 15 cu ft

Weight 238 lbs

CONTROL PANEL TRUNK

Length 32 in.

Width 16 in.

Height 14 in.

Cube 5 cu ft

Weight 95 lbs

Associated Equipment:

None.

Kits:

None.

APE 2071--MACHINE, CLIP LOADING, 10-RD CLIP, 5.56MM

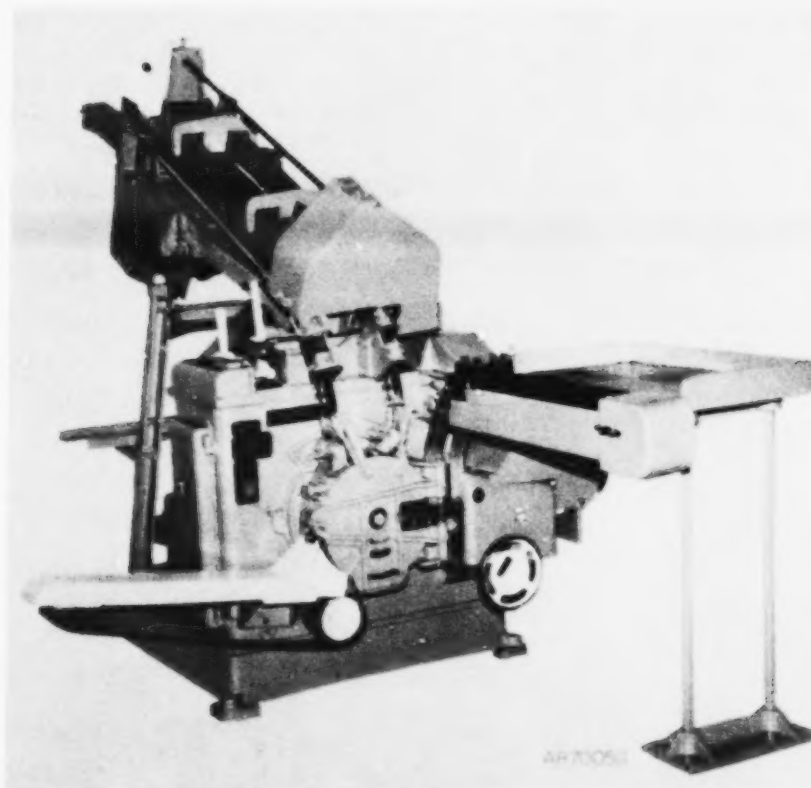


Figure 2-201.

Use:

The clip loading machine is used to insert 5.56MM cartridges into 10 round clips by power operation.

Description:

The machine consists of a metal frame, a cartridge aliner, a clip feed mechanism, a clipping mechanism, and a clipped ammunition chute.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20710000

Unit of Issue Each

Installation Data:

Length 94 in.

Width 60 in.

Height 70 in.

Weight 2381 lbs

Utilities Required:

208 vac, 3 phase, 60 Hz.

Production Capacity:

150 clips per minute.

Shipping Data:

Length 72 in.
Width 55 in.
Height 82 in.
Cube 188 cu ft
Weight 2824 lbs

Associated Equipment:

None.

Kits:

None.

APE 2074--FACILITY, RADIOGRAPHIC INSPECTION

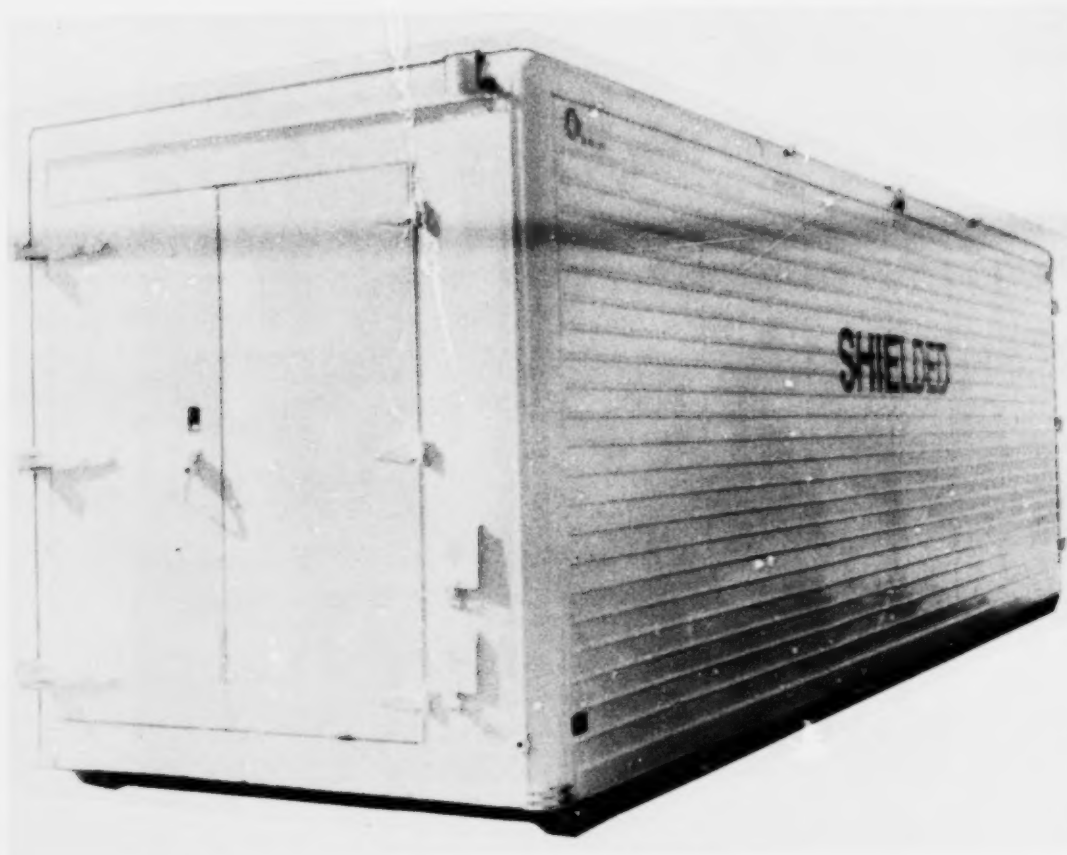


Figure 2-202.

Use:

The radiographic inspection facility is used to provide a portable facility for radiographic inspection of ammunition items.

Description:

The facility consists of a skid mounted shelter, containing an x-ray head, x-ray controls, and photo developing and printing equipment.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20740000
Unit of Issue Each

Installation Data:

Length 26 ft 1 in.
Width 8 ft 6-1/2 in.
Height 8 ft 11 in.
Weight 18,000 lbs

Utilities Required:

120/208 vac, 3 phase, 60 Hz or
45 kw generator.

Production Capacity:

Not applicable.

Shipping Data:

Length 26 ft 1 in.
Width 8 ft 6-1/2 in.
Height 8 ft 11 in.
Cube 1989 cu ft
Weight 18,000 lbs

Associated Equipment:

APE 1288, 2068M2.

Kits:

None.

APE 2077--DECLIPPER, 10 ROUND, 5.56MM; FIVE ROUND,
7.62MM; AND FIVE ROUND, CAL .30

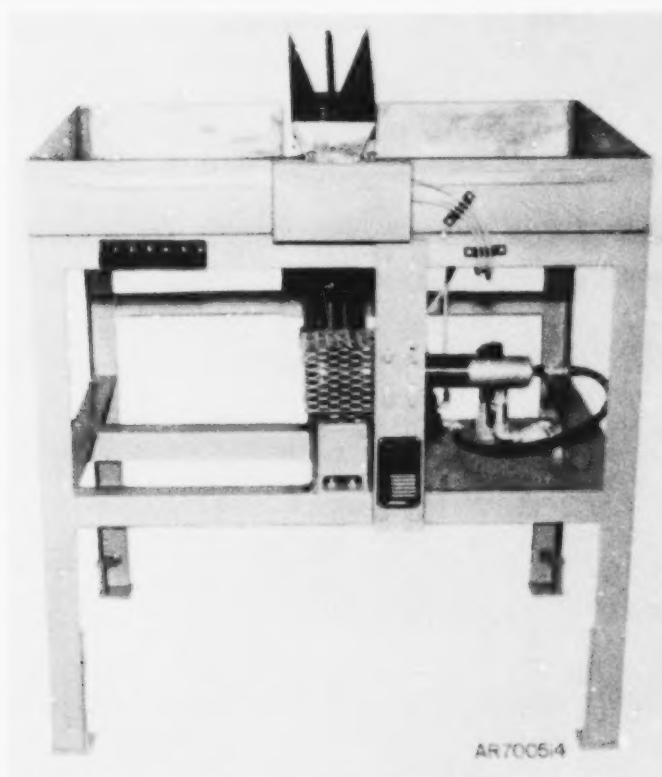


Figure 2-203.

Use:

The declipper is used to remove 5.56MM cartridges from 10 round clips and 7.62MM and caliber .30 cartridges from five round clips by power operation.

Description:

The declipper consists of a metal frame with a feed table mounted on top of the frame, and a clip feed chute mounted below the table in the center of the frame. An air motor is mounted over the clip feed chute. A roller mounted on

the air motor removes the clips from the cartridges.

Difference Between Models:
Original design.

Tabulated Data:

APE No.	20770000
Unit of Issue	Each
Installation Data:	
Length	36 in.
Width	30 in.
Height	46 in.
Weight	290 lbs

Utilities Required:

Air at 90 psi.

Production Capacity:

Dependent on operator skill
and condition of cartridges
and clips.

Cube 43 cu ft

Weight 414 lbs

Associated Equipment:

APE 2021M1, 2031, 2032.

Kits:

2077E001 KIT, Center Guide,
5.56MM

2077E002 KIT, Center Guide,
7.62MM and Cal .30

Shipping Data:

Length 42 in.

Width 35 in.

Height 51 in.

APE 2081--WRENCH, NOSE CAP REMOVAL, 90MM: M371

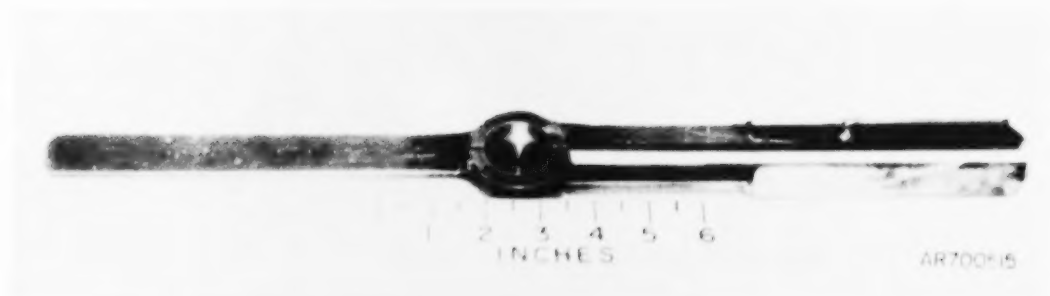


Figure 2-204.

Use:

The nose cap removal wrench is used to remove the nose cap from the spike of the 90MM: M371 HEAT cartridge by hand operation. The wrench allows for application of minimum pressure for gripping the nose cap for the removal operation.

Description:

The wrench is constructed of steel and one handle is forked. The nose cap cup and 1 inch of the solid handle have a 1/16-inch slot

centrally located. This spacing and the slotted cup allow application of minimum pressure for gripping nose cap.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20810000
Unit of Issue Each

Installation Data:

Length 20 in.
Width 2 in.
Height 1 in.
Weight 1-1/2 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 22 in.

Width 3 in.

Height 2 in.

Cube 132 cu in.

Weight 3 lbs

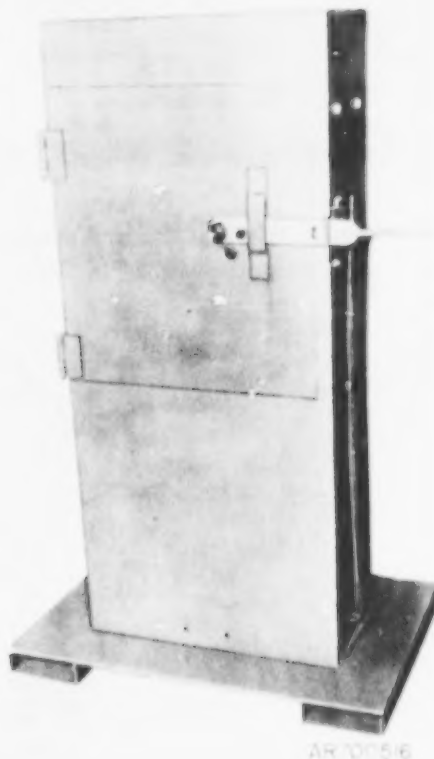
Associated Equipment:

None.

Kits:

None.

APE 2083--FIXTURE, FUZE HEAD REMOVAL, M48A3 FUZE



AR 0056

Figure 2-205.

Use:

The head removal fixture is used to remove and/or assemble the head assembly on the M48A1 series fuzes. The fixture will also accommodate the M51A4 Mod 3 fuze.

Description:

The fixture consists of an operational shield, a fuze holder, a nose assembly holding assembly, an air motor, and the air controls.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20830000
Unit of Issue Each

Installation Data:

Length 36 in.
Width 60 in.
Height 24 in.
Weight 250 lbs

Utilities Required:

Air at 100 psi and 100 cfm.
Production Capacity:
240 fuzes per hour.

Shipping Data:

Length 40 in.
Width 66 in.
Height 30 in.
Cube 46 cu ft
Weight 300 lbs

Associated Equipment:

None.

Kits:

None.

APE 2086--LINK-DELINK MACHINE, 5.56MM

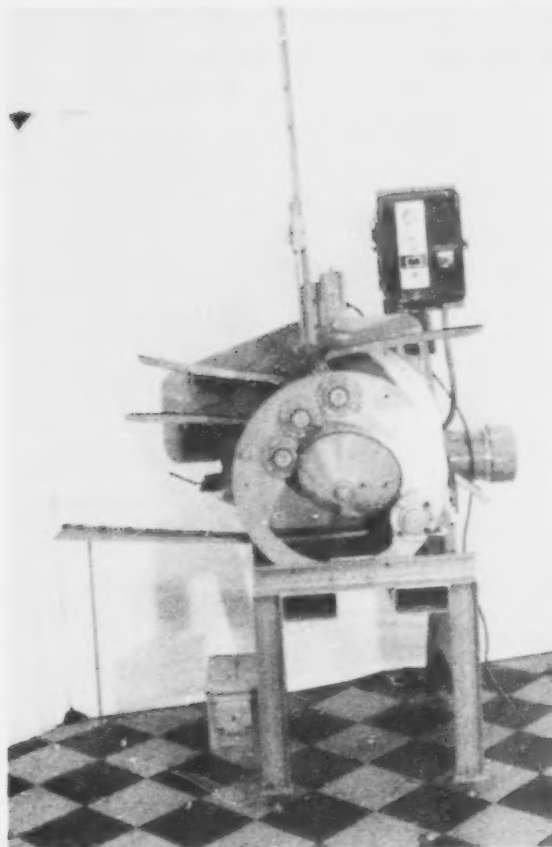


Figure 2-205.1.

Use:

The machine is designed for use in linking, delinking, or ratio changing 5.56MM cartridges with the M27 link. The machine is capable of handling straight or ratio packed ammunition. Linking or ratio changing will be in a sequence of five cartridges.

Description:

The APE 2086 is a drum type, frame mounted machine, convertible to linking, delinking or ratio changing.

During linking operations, cartridge feed chutes, feed wheel assemblies and the link feed chute simultaneously feed cartridges and links onto the drum grooves to be combined by the cartridge insert and link retainer assembly into one continuous belt. A vibrator is provided to keep cartridges and links moving into the grooves of the rotating drum. The link feed chute is supplied with links by twelve hand filled link magazines which must be removed

removed and replaced manually during linking operations.

Delinking operations are performed by means of ejector rods moved by a delink core which pushes the cartridges from the links as the drum rotates. Links and cartridges are released into separate user supplied retrieval receptacles.

The ratio change operation is accomplished by a combination of the linking and delinking operations. Cartridges to be changed will be removed by ejector rods and replaced as in the linking procedure.

The machine is an electrically operated by a variable speed, direct current motor drive controller.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 20860000
Unit Of Issue Each
Installation Data:
Depth 35 in.
Width 55 in.
Height 106 in.
Cubic Feet 52.5 cu. ft.
Occupied Floorspace:
12 Square Feet

Utilities Required:

115 VAC, single phase, 60 hz,
20 amps

Production Capacity:

The APE 2086 is a hand fed machine, the production rate given will vary dependant upon the operation being performed and the dexterity of the operators.

Linking 150 to 400 rounds
per minute
Ratio Changing 150 to 800
rounds per minute
Delinking ... 150 to 1,000 rounds
per minute

Shipping Data:

Length Not available
Width Not available
Height Not available
Cube Not available
Weight Not available

Associated Equipment:

None

Kits:

None

APE 2087--TESTER, PROJECTILE HARDNESS

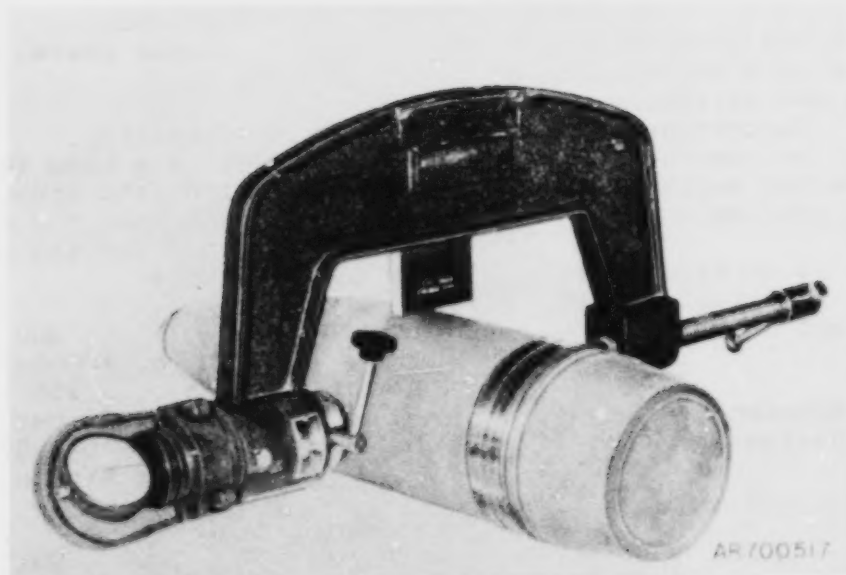


Figure 2-206.

Use:

The projectile hardness tester is used to check the hardness of 155MM, 175MM and 8-inch projectiles.

Description:

The tester consists of a large C-clamp with a spring box in one end. The spring box has a penetrator attached. A lever applies the load to the projectile being tested. The hardness reading is shown on a dial gage. The unit is stored in a steel case.

2-422.2

Difference Between Models:
Original design.

Tabulated Data:

APE No.	20870000
Unit of Issue	Each
Installation Data:	
Length	28-1/2 in.
Width	13 in.
Height	6 in.
Weight	60 lbs

Utilities Required:
None.

Production Capacity:

Dependent on number of readings taken on each projectile.

Shipping Data:

Length 28-1/2 in.
Width 13 in.
Height 6 in.
Cube 1.29 cu ft
Weight 60 lbs

Kits:

2087E001 KIT, 155MM Projectile
Spacer
2087E002 KIT, 175MM Projectile
Spacer
2087E003 KIT, 8-Inch Projectile
Spacer
2087E004 KIT, Rockwell B Scale
2087E005 KIT, Rockwell C Scale
2087E006 KIT, Testing Table

Associated Equipment:

None.

APE 2089--SCALE, ZONE WEIGHING

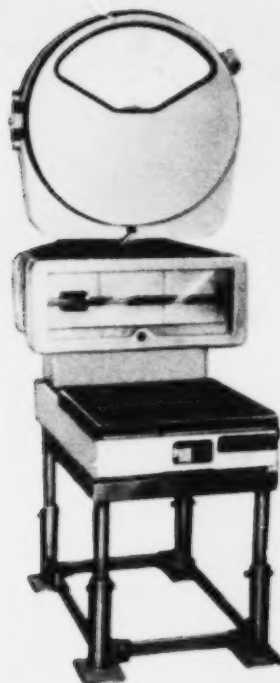


Figure 2-207.

Use:

To check weigh 75 thru 120 millimeter projectiles for verification and/or determination of zone weights. This includes 4.2-inch mortar cartridges.

Description:

Not available.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 20890000

Unit of Issue Each

Installation Data:

Length 31 in.

Width 28 in.

Height 73 in.

Weight 375 lb

Utilities Required:

None.

Production Capacity:

Zone weights range from 9 to 60 pounds with a 0.02 pound sensitivity.

Shipping Data:

Length not available
Width not available
Height not available
Cube 23 cu ft
Weight not available

Associated Equipment:

APE 2094.

Kits:

None.

APE 2090--SCALE, ZONE WEIGHING



Figure 2-208.

Use:

To check weight 155MM thru 240MM projectiles for verification and/or determination of zone weights. This includes 8-inch projectiles.

Description:

Not available.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20900000

Unit of Issue Each

Installation Data:

Length 44 in.

Width 28 in.

Height 73 in.

Weight 680 lbs

Utilities Required:

None.

Production Capacity:

Zone weights range from 91 to
366 pounds with a 0.02 pound
sensitivity.

Shipping Data:

Length not available
Width not available
Height not available
Cube 55.6 cu ft
Weight 717 lbs

Associated Equipment:

APE 2094.

Kits:

None.

APE 2091--MACHINE, CAN SEALING

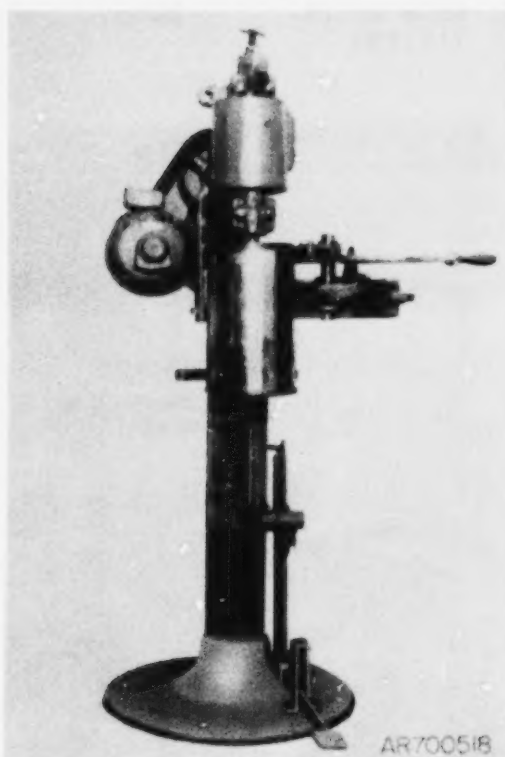


Figure 2-209.

Use:

The can sealing machine is used to seal cans 3 to 10-1/2 inches in diameter and from 4 to 20 inches in height.

Description:

The machine consists of a sealing head and can support mounted on a steel column. The column is attached to a pedestal. A drive motor is mounted on the side of the column.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20910000
Unit of Issue Each

Installation Data:

Length 37 in.
Width 34 in.
Height 58 in.
Weight 500 lbs

Utilities Required:

220/440 vac, 3 phase, 60 Hz.

Production Capacity:

100 to 125 containers per hour.

Shipping Data:

Length 48 in.
Width 42 in.
Height 72 in.
Cube 84 cu ft
Weight 740 lbs

Associated Equipment:

None.

Kits:

None.

APE 2094--DEVICE, LOCKING, SCALE PLATFORM

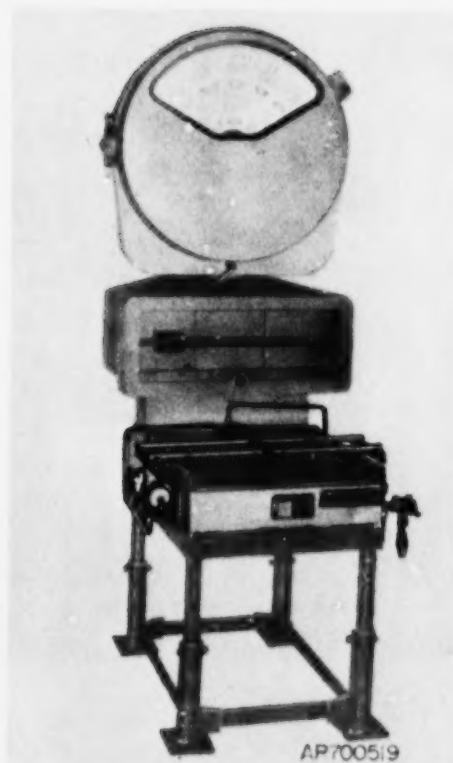


Figure 2-210.

Use:

The scale platform locking device is used to hold the scale platform to reduce shock and protect the divots and other delicate scale parts from damage during the process and rolling projectiles on and off the scale platform.

Description:

The locking device consists of two air cylinders, a control assembly, and the stop assemblies. The stop assemblies are mounted on the sides of the scale platform. The air cylinders are mounted on the scale frame and clamp onto the stop assemblies to hold the platform still.

Difference Between Models:
Original design.

Production Capacity:
Not applicable.

Tabulated Data:

APE No. 20940000
Unit of Issue Each
Installation Data:
Length 25-1/2 in.
Width 23 in.
Height 10 in.
Weight 14 lbs
Utilities Required:
Air at 80 psi and 0.5 cfm.

Shipping Data:

Length 15 in.
Width 11 in.
Height 9 in.
Cube 1.0 cu ft
Weight 29 lbs

Associated Equipment:

APE 2044M1, 2045M1, 2089, 2090.

Kits:

None.

APE 2097--DEVICE, PROJECTILE HOLDING

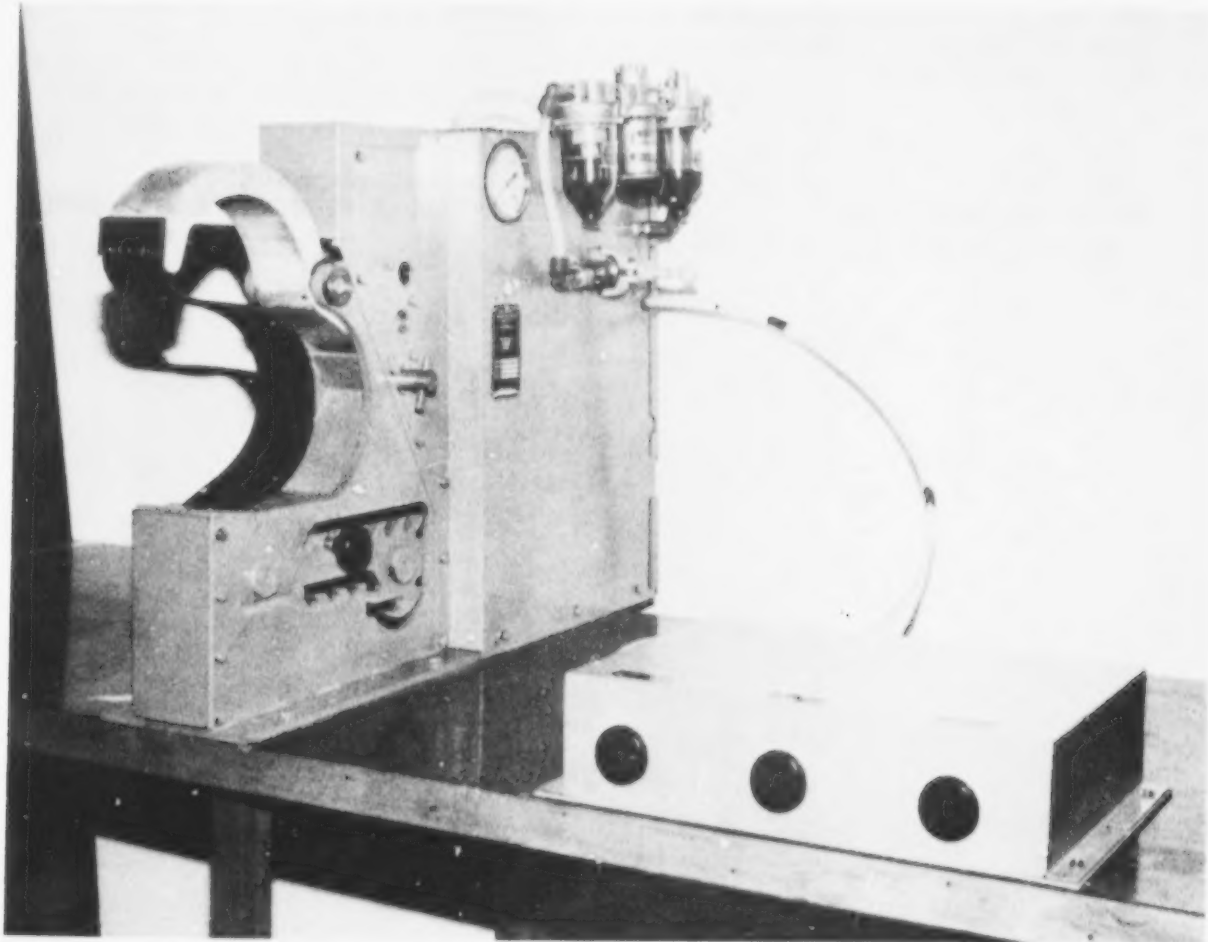


Figure 2-211.

Use:

The projectile holding device is used to hold ammunition items ranging in size from 60MM to 8 inches in diameter. It holds the projectile with a belt that is tightened by an air cylinder.

Description:

The device consists of the belt holding device, an air system for operation and three 3-way air control valves in a control panel. The device can be installed in a vertical or horizontal position.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20970000

Unit of Issue Each

Installation Data:

DEVICE

Length 39 in.

Width 14-1/2 in.

Height 29 in.

Weight 263 lbs

CONTROL PANEL

Length 20 inches

Width 8-1/2 in.

Height 4-3/4 in.

Utilities Required:

Air at 90 psi.

Production Capacity:

Dependent on operation being performed.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2099--DISASSEMBLY MACHINE, WP 3.5 INCH ROCKET

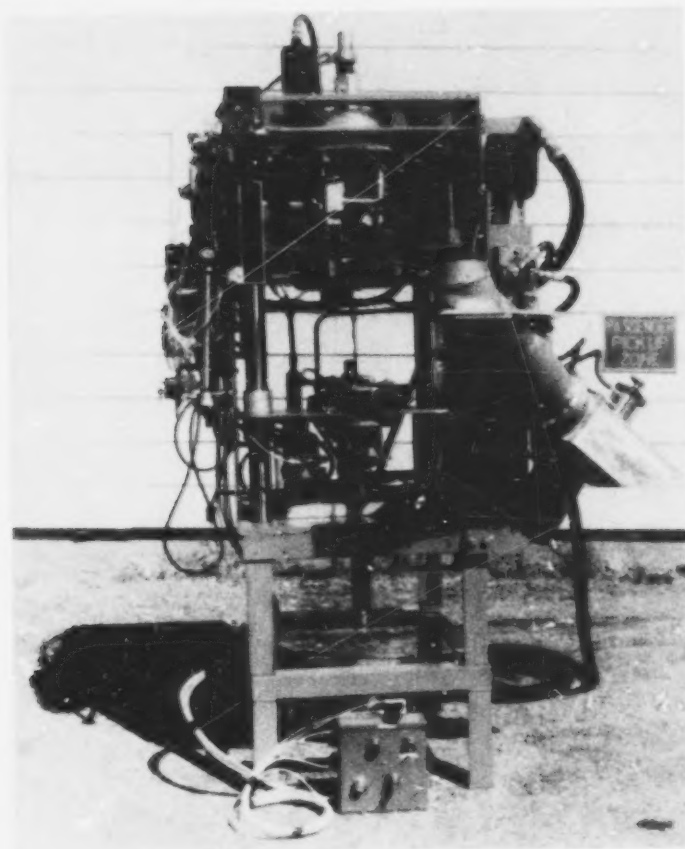


Figure 2-212.

Use:

The rocket disassembly machine is used to remotely disassemble 3.5 White Phosphorus rockets with an automatic or emergency dump chute.

Description:

The machine is a hydraulically powered and pneumatically controlled machine. The machine consists of a frame, an upper disassembly

head, lower disassembly head, fuze clamp assembly, detonator clamp assembly and fire sensor, automatic or emergency dump chute, pneumatic logic control system, remote control box and hydraulic power system.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 20990000

Unit of Issue Each

Installation Data:

Length 41 in.

Width 36 in.

Height 90 in.

Weight 2000 lbs

Utilities Required:

Air at 100 psi line pressure.

Electrical at 115V explosion
proof.

Production Capacity:

Presently unknown.

Shipping Data:

Length 61 in.

Width 46 in.

Height 102 in.

Weight 2300 lbs

Cube 165.6 cu ft

Associated Equipment:

None.

Kits:

None.

APE 2101--SCALE, OVER-UNDER



Figure 2-213.

Use:

The over-under scale is used to weigh propellant powder and other small items weighing up to 4 ounces.

Description:

The scale is a bench style with a commodity platter. It has a moving pointer to indicate if the item being weighed is overweight or underweight. The pointer is protected by a clear plastic cover.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21010000

Unit of Issue Each

Installation Data:

Length 18-1/2 in.

Width 10-3/4 in.

Height 12-3/4 in.

Weight not available

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2102--SCALE, OVER-UNDER



Figure 2-213.1.

Use:

The over-under scale is used to weigh propellant powder and other small items weighing up to 1 pound.

Description:

The scale is a bench style with a commodity platter. It has a moving pointer to indicate if the item being weighed is overweight or underweight. The pointer is protected by a clear plastic cover.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21020000
Unit of Issue Each

Installation Data:

Length 18-1/2 in.
Width 10-3/4 in.
Height 12-3/4 in.
Weight not available

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2103--SCALE, OVER-UNDER



Figure 2-213.2.

Use:

The over-under scale is used to weigh propellant powder and other small items weighing up to 3 pounds.

Description:

The scale is a bench style with a commodity platter. It has a moving pointer to indicate if the item being weighed is overweight or underweight. The pointer is protected by a clear plastic cover.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21030000
Unit of Issue Each

(2-439 Blank)/2-440

Installation Data:

Length 18-1/2 in.
Width 10-3/4 in.
Height 12-3/4 in.
Weight not available

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2104--SCALE, OVER-UNDER



Figure 2-213.3.

Use:

The over-under scale is used to weigh propellant powder and other small items weighing up to 6 pounds.

Description:

The scale is a bench style with a commodity platter. It has a moving pointer to indicate if the item being weighed is overweight or underweight. The pointer is protected by a clear plastic cover.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21040000
Unit of Issue Each

Installation Data:

Length 25-1/2 in.
Width 14-1/2 in.
Height 17 in.
Weight not available

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2105--SCALE, OVER-UNDER



Figure 2-213.4.

Use:

The over-under scale is used to weigh propellant powder and other small items weighing up to 12 pounds.

Description:

The scale is a bench style with a commodity platter. It has a moving pointer to indicate if the item being weighed is overweight or underweight. The pointer is protected by a clear plastic cover.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21050000
Unit of Issue Each

Installation Data:

Length 24-1/2 in.
Width 16-5/8 in.
Height 18-7/8 in.
Weight 90 lb

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length 30 in.
Width 18 in.
Height 21 in.
Cube 6.3 cu ft
Weight 118 lb

Associated Equipment:

None.

Kits:

None.

APE 2106--SCALE, OVER-UNDER

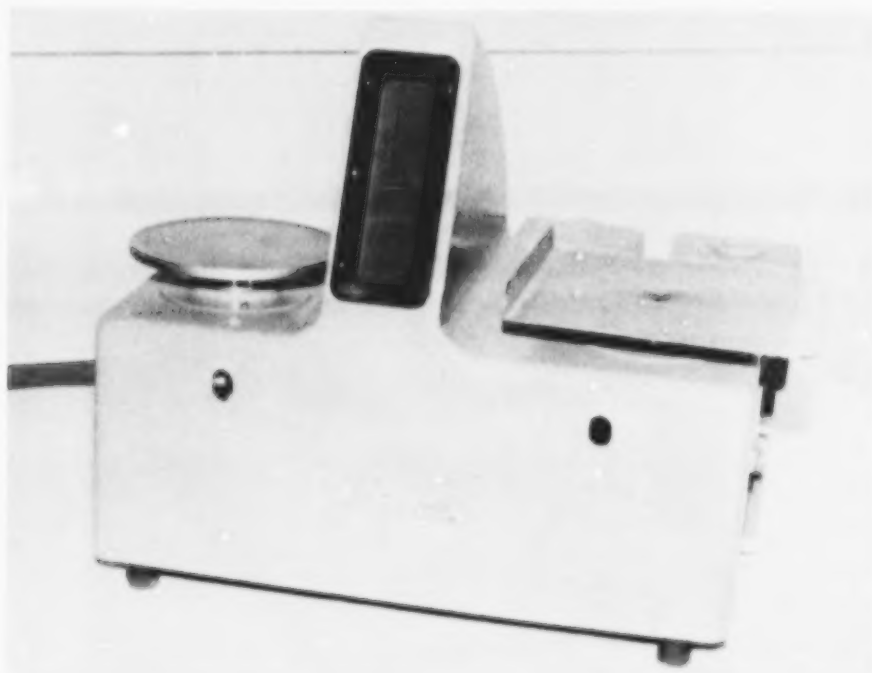


Figure 2-214.

Use:

The over-under scale is used to weigh propellant powder and other small items weighing up to 22 pounds.

Description:

The scale is a bench style with a commodity platter. It has a moving pointer to indicate if the item being weighed is overweight or underweight. The pointer is protected by a clear plastic cover.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21060000
Unit of Issue Each

Installation Data:

Length 25-1/2 in.
Width 14-1/2 in.
Height 17 in.
Weight not available

Utilities Required:

110 vac, single phase, 60 Hz.

Production Capacity:

Not applicable.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2107--TOOL, FUZEWELL LINER EXPANSION

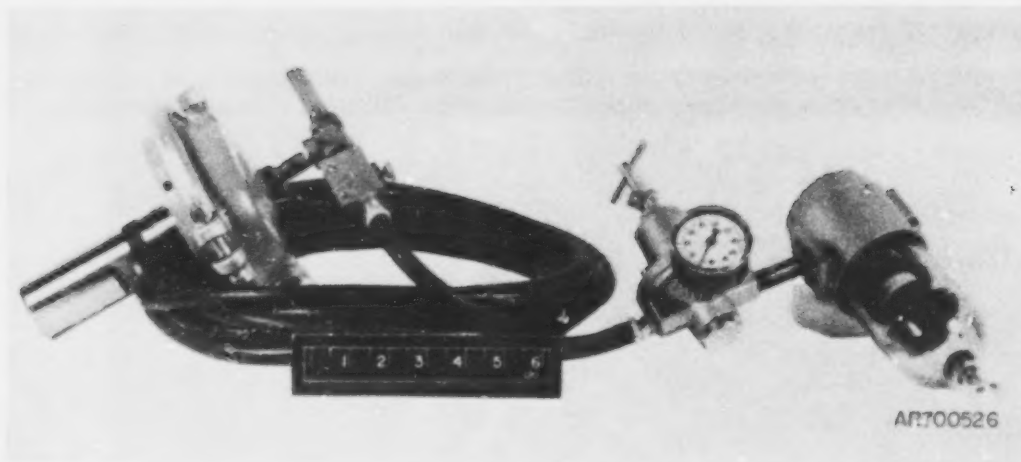


Figure 2-215.

Use:

The expansion tool is used to secure fuzewell liners in artillery projectiles. The tool may be used for direct operation or remote control operation.

Description:

The tool consists of a modified air brake chamber with controls for either direct or remote control operation. The tool has a rubber expansion ring positioned between metal guides. A filter regulator assembly is included with the tool.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21070000

Unit of Issue Each

Installation Data:

Length 9 in.

Width 8 in.

Height 10 in.

Weight 8-1/2 lbs

Utilities Required:

Air at 60 psi.

Production Capacity:

Not applicable.

Shipping Data:

Length 14 in.
 Width 10 in.
 Height 8 in.
 Cube 0.65 cu ft
 Weight 21 lbs

Associated Equipment:

None.

Kits:

2107E001 KIT, Remote Control

The Data on Pages 2-450 and 2-451, Including Figure 2-216 Deleted.

APE 2126--MACHINE, CALIBER .50 DECORING

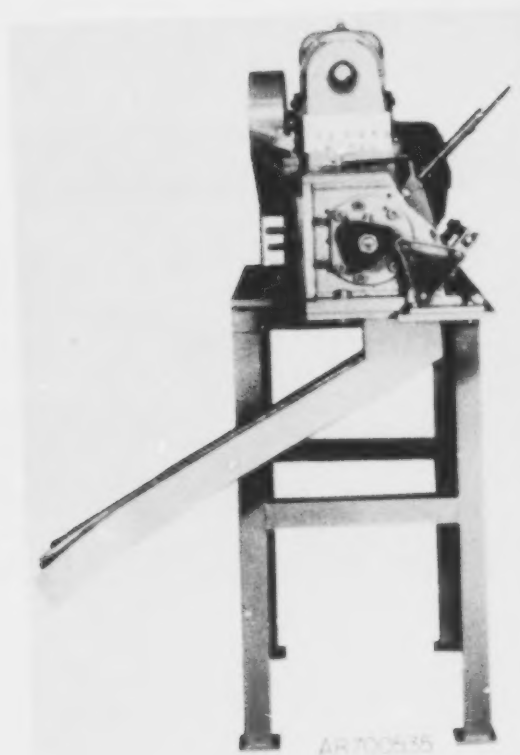


Figure 2-217.

Use:

The decoring machine is used to cut the metal jackets on caliber .50 bullets for separation of metal jackets, lead tips, and steel cores for salvage operations.

Description:

The machine consists of a metal frame with decoring head, discharge chute, shuttle assembly, and bullet feed tube. An electric motor is mounted on the frame. Moving parts are shielded by a metal guard.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21260000
Unit of Issue Each

Installation Data:

Length 32 in.
Width 34 in.
Height 55 in.
Weight 587 lbs

Utilities Required:

220/440 vac, 3 phase, 60 Hz.

Production Capacity:

HAND FEED

Tracer 48 per min
 Armor-piercing
 or ball 73 per min
 Incendiary ... 62 per min

AUTOMATIC FEED

Armor-piercing
 or ball 125 per min
 Incendiary ... 100 per min

Shipping Data:

Length 34 in.
 Width 42 in.
 Height 58 in.
 Cube 48 cu ft
 Weight 887 lbs

Associated Equipment:

None.

Kits:

None.

APE 2128--WRENCH, 81MM MORTAR FIN DISASSEMBLY

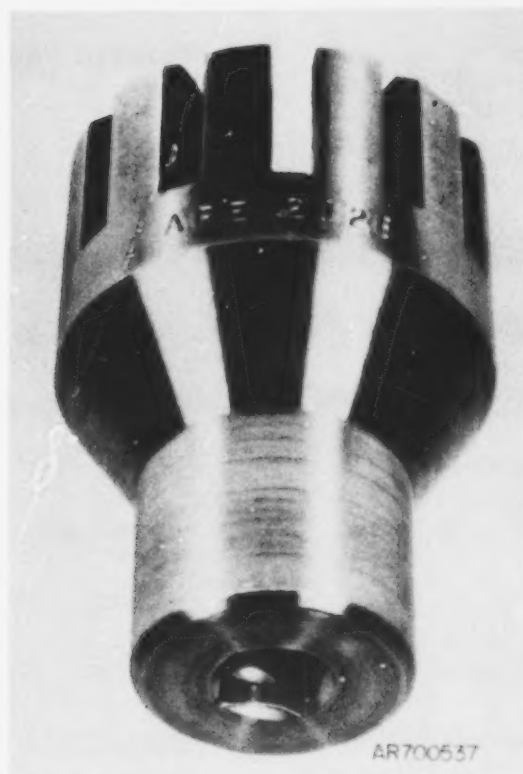


Figure 2-218.

Use:

The disassembly wrench is used to disassemble, assemble, and torque 81MM mortar fins to projectiles.

Description:

The wrench is constructed of steel and has slots machined to accommodate the different mortar fin configurations. It has a 1/2-inch square drive for use with a socket wrench.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21280000
Unit of Issue Each

Installation Data:

Length 3-3/4 in.
Width 2-15/32 in.
Height 2-15/32 in.
Weight 2 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 6 in.
Width 6 in.
Height 10 in.
Cube 0.2 cu ft
Weight 3 lbs

Associated Equipment:

None.

Kits:

None.

APE 2130M2--ROTATOR, POWERED, COMPLETE ROUND, 75MM THROUGH 90MM

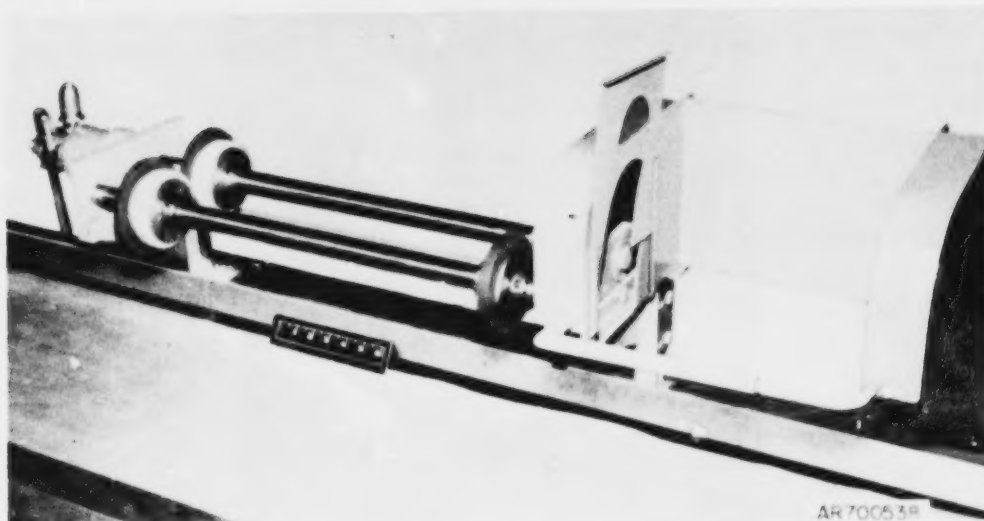


Figure 2-219.

Use:

The complete round rotator is used to rotate and shield projectiles, 75MM through 90MM cartridges during painting operations. Additional accessory kits provide the capability to adapt the machine for use with 76MM/62 Navy cartridges and 3"/50 Navy cartridges.

Description:

The rotator consists of a metal frame, an air drive motor, a drive shaft with drive wheels, an idler shaft with idler wheels, and a shield assembly.

Difference Between Models:

The APE 2130M2 is adaptable for use with the accessory kits APE 2130E004, rotator, powered, complete round, 76MM Navy and APE 2130E005, rotator, powered, complete round, 3"/50. The APE 2130M1 does not have these capabilities.

The APE 2130M1 added a static electricity eliminating brush to the original model design.

Tabulated Data:

APE No. 21300000M2

Unit Of Issue Each

Installation Data:

Length 47-7/8 in.

Width 15-1/4 in.

Height 15-1/2 in.

Weight 55 lbs.

Utilities Required:

Air at 80 psi and 11 cfm.

Production Capacity:

Not applicable

Shipping Data:

Length 43 in.

Width 18 in.

Height 22 in.

Cube 10 cu. ft.

Weight 155 lbs.

Associated Equipment:

None

Kits:

2130E001 Kit, 90MM Shield

2130E002 Kit, 75MM or 76MM
Shield

2130E003 Kit, Foot Valve

2130E004 Rotator, Powered,
Complete Round, 76MM Navy

2130E005 Rotator, Powered,
3"/50

APE 2132--EQUIPMENT, ULTRASONIC INSPECTION

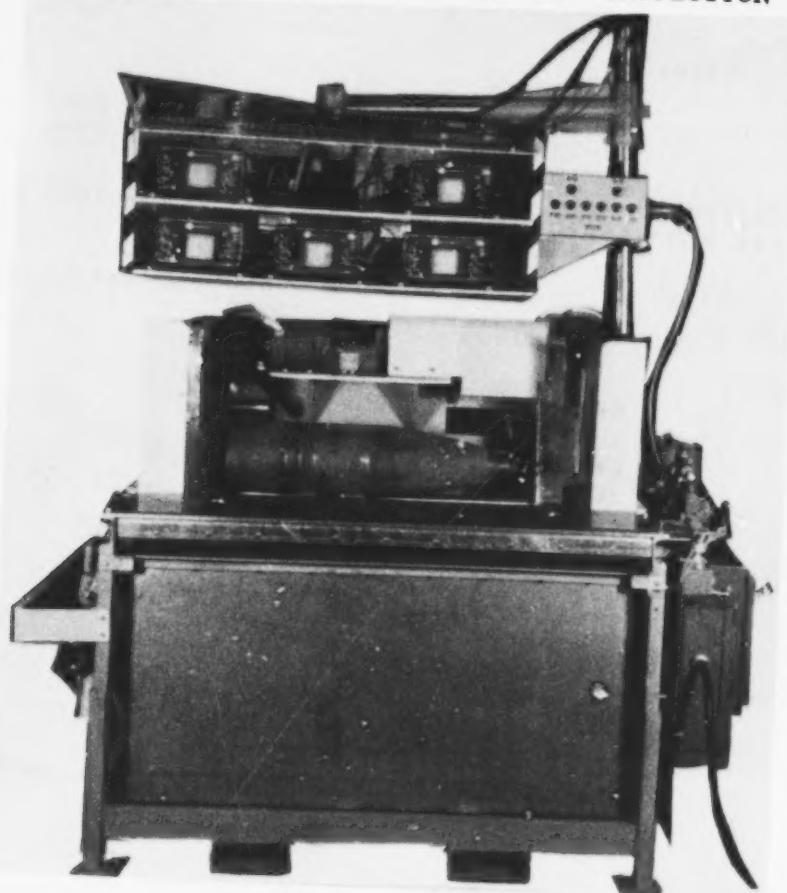


Figure 2-220.

Use:

The Ultrasonic inspection equipment is used to search for flaws in the nose, forward bourrelet, rear bourrelet and base of the following projectiles:

- 105MM: M1 Cartridge
- 155MM: M107 Projectile
- 175MM: M437 Projectile
- 8 Inch: M106 Projectile

Description:

The machine accepts one projectile at a time placed horizontally on the elevator assembly and lowered

into the immersion tank. The projectile is then rotated about its axis, as five ultrasonic transducers focused at a determined location search for flaws. The transducers are connected to five portable ultrasonic flaw detector units mounted in the tester cabinet. When flaws are detected an alarm light and alarm horn is actuated.

The principal assemblies which make up the ultrasonic inspection equipment are described below.

A. The frame assembly houses the projectile immersion tank and provides structural support for the components that make up the ultrasonic inspection equipment.

B. The tester cabinet and mounting assembly provides a housing for the portable ultrasonic flaw detector units and a shelf for mounting the alarm box assembly. The cabinet and mounting assembly are positioned above the machine which allows viewing the flaw detector units and alarm box during machine setup and operation.

C. The projectile elevator assembly takes one projectile at a time and lowers it into position for the screening operation in the projectile immersion tank.

D. The electrical assembly and the pneumatic assembly provide power to operate the machine.

E. One ultrasonic test standard assembly for each projectile. The machine is designed to inspect; A008 for 105MM:M1, A009 for 175MM:M437, A010 for 8 Inch:M106, and A011 for 155MM:M107.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 213200000
Unit of Issue Each
Installation Data:
Length 63 in.
Width 80 in.
Height 102 in.
Weight 2000 lbs.
Floor Space 33.69 sq. ft.

Utilities Required:

Electrical 208-240 V,
120 V, 60 Hz @
35 Amps Max
Air 1 CFM at 85 psi
Couplant Distilled water
mixed with
Immunol #1228-2
water condi-
tioner
Projectile Immersion Tank
Capacity 187 gal.
Immunol Grade 1228-2
Pump Motor 1/4 HP
Capacity 5.8 gallons per
minute at 10
foot head

Production Capacity:

Shipping Data:

CRATE 1
Length 87 in.
Width 67 in.
Height 64 in.
Cube 64 in.
Weight 226 cu. ft.
3540 lbs.

Associated Equipment:

None

Kits:

None

APE 2134--PACKER, BOX, LINKED 7.62MM CARTRIDGES

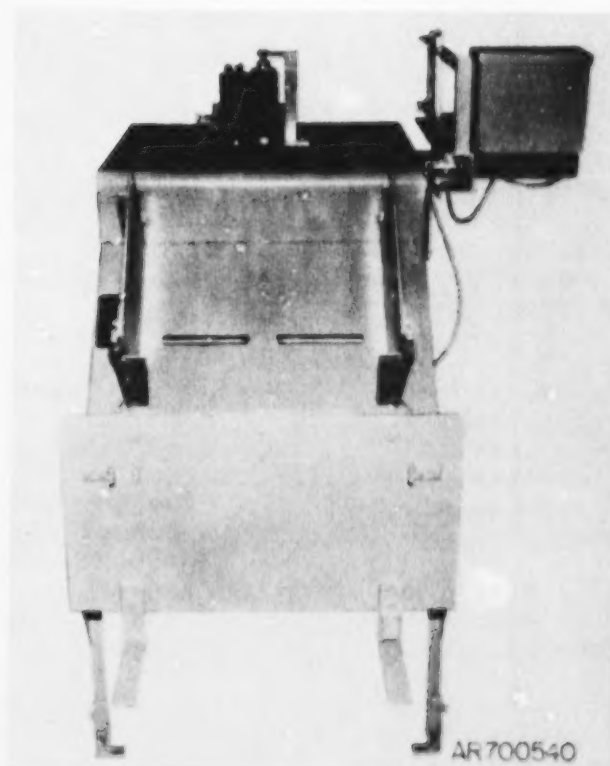


Figure 2-221.

Use:

The box packer is used to assist in packing two 750 round belts of 7.62MM cartridges into cardboard packing sleeves and placing them into an M548 container.

Description:

The packer consists of a metal table with powered roller feed for ammunition belts, a spacer dispenser, a tray positioned at a 50 degree angle on which to pack the packaging sleeve, and a rack to hold and position the M548 container for filling.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21340000

Unit of Issue Each

Installation Data:

Length 24 in.

Width 51-1/2 in.

Height 45-5/8 in.

Weight 300 lbs

Utilities Required:

115 vac, single phase, 60 Hz;
air at 60 to 100 psi.

Production Capacity:
Production is dependent on
operator skill.

Cube 81 cu ft
Weight 520 lbs

Shipping Data:

Length 60 in.
Width 43 in.
Height 54 in.

Associated Equipment:
None.

Kits:
None.

APE 2136--DEBANDER-REBANDER, 81MM MORTAR

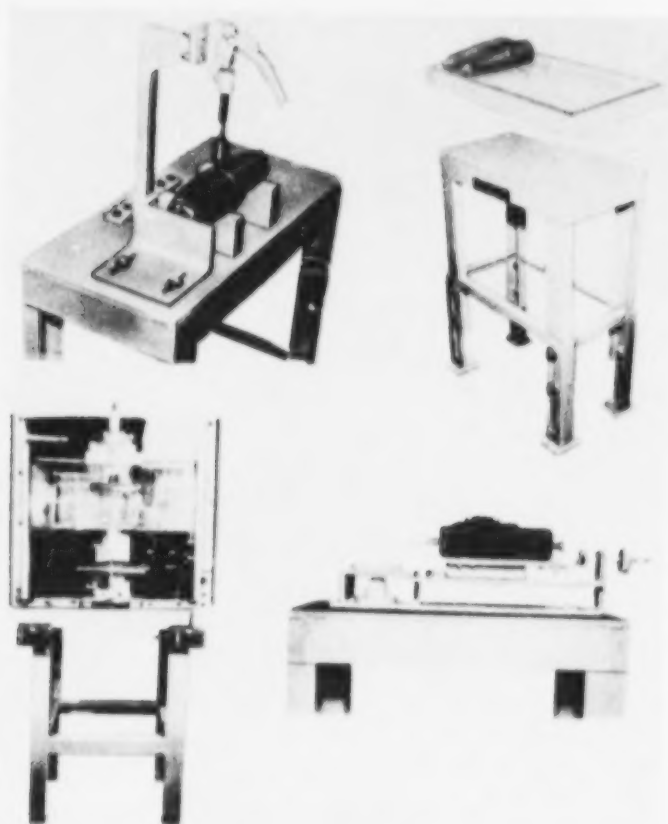


Figure 2-222.

Use:

The debander-rebander is used to remove the old plastic obturating band, replace it with a new band, and heat seal it in place.

Description:

The equipment is made up of four separate stations. The first is a debanding station which consists of a table with a band cutter attached. The second station is a table to hold the projectiles

until the third station is ready for them. The third station is a heat seal press. The fourth station is a test station with a test unit for testing the strength of the obturating band.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21360000
Unit of Issue Each

Installation Data:

DEBANDING STATION

Length 14-1/2 in.
 Width 26 in.
 Height 55 in.
 Weight not available

SURGE STATION

Length 14-1/2 in.
 Width 26 in.
 Height 35 in.
 Weight not available

HEAT SEAL AND PRESS

Length 32 in.
 Width 36 in.
 Height 68 in.
 Weight 500 lbs

TENSION TEST STATION

Length 14-1/2 in.
 Width 26 in.
 Height 39-1/2 in.
 Weight 85 lbs

Utilities Required:

110 vac, single phase, 60 Hz,
 800 watts.

Production Capacity:

300 rounds per hour.

Shipping Data:

Length 60 in.
 Width 53 in.
 Height 79 in.
 Cube 145 cu ft
 Weight 1700 lbs

Associated Equipment:

None.

Kits:

None.

All Data on Pages 2-464 and 2-465, Including Figure 2-223 Deleted.

APE 2139--REMOVER, WINDSHIELD, M90A1 FUZE

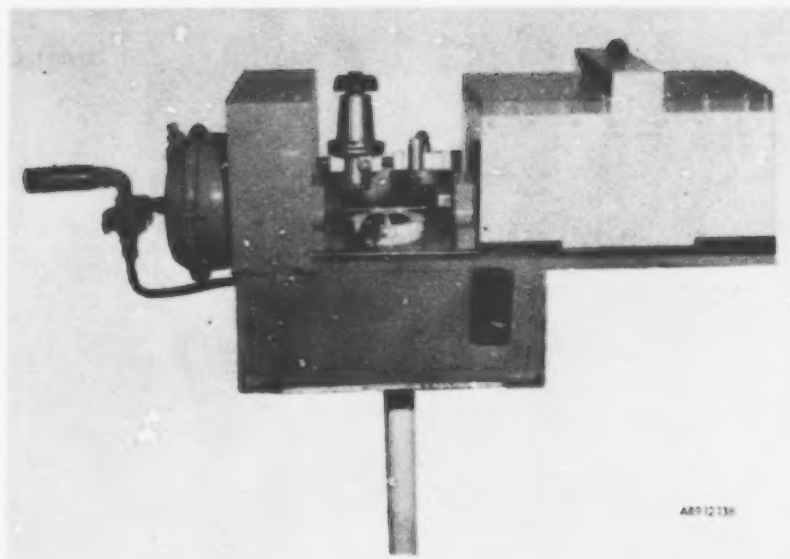


Figure 2-224.

Use:

The windshield remover is used to remove the windshield or ogive from M90A1 fuzes.

Description:

The machine has a flat metal base with two air brake cylinders mounted on top and a holding fixture to secure the fuze. A shield is fastened to the base.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21390000
Unit of Issue Each

Installation Data:

Length 37 in.
Width 13 in.
Height 17 in.
Weight 75 lbs

Utilities Required:

Air at 90 psi and 80 cfm.
Production Capacity:
Not applicable.

Shipping Data:

Length 42 in.
 Width 18 in.
 Height 24 in.
 Cube 10.5 cu ft
 Weight 125 lbs

Associated Equipment:

None.

Kits:

None.

APE 2140--LINK-DELINK MACHINE, 20MM

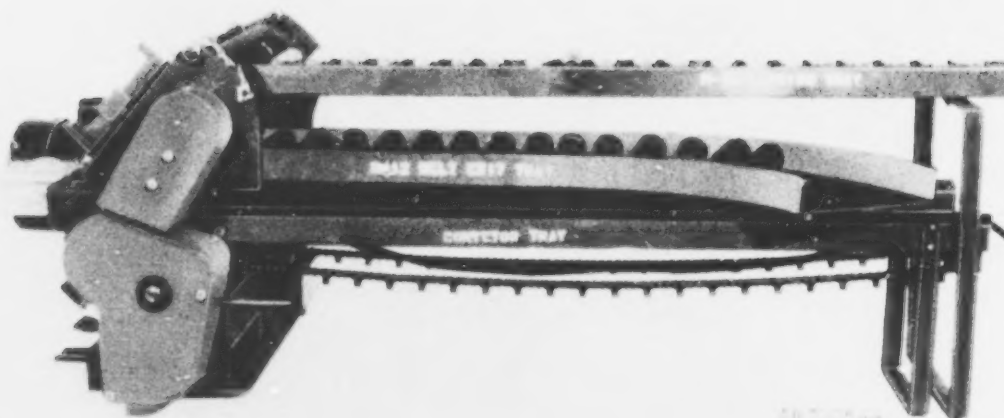


Figure 2-225.

Use:

The 20MM link-delink machine is used to link or delink 20MM cartridges with M12, M14, or M17 links. It can remove cartridges from one type of link and place them in another link in one operation.

Description:

The linker-delinker is a self-contained, bench mounted, motor driver unit which mechanically links 20MM cartridges into a continuous flexible ammunition belt.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21400000

Unit of Issue Each

Installation Data:

Length 24 in.

Width 15 in.

Height 15 in.

Weight 233 lbs

Utilities Required:

115 vac, single phase, 60 Hz.

Production Capacity:

72 cartridges per minute.

Shipping Data:

Length 48 in.
Width 24 in.
Height 24 in.
Cube 16 cu ft
Weight 400 lbs

Associated Equipment:

None.

Kits:

None.

APE 2145--TESTER, HARDNESS, ARTILLERY PROJECTILE

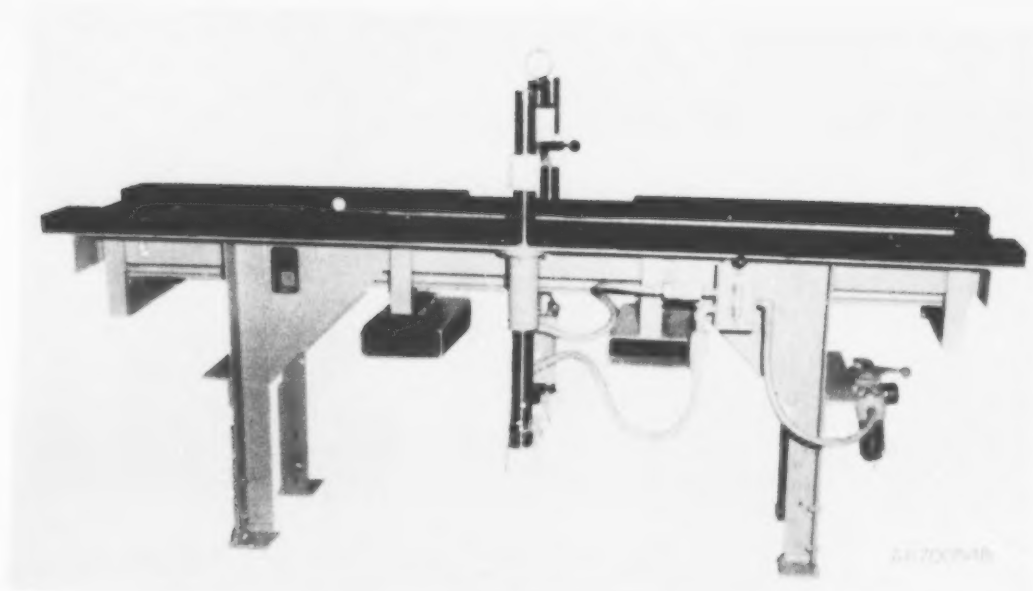


Figure 2-226.

Use:

The hardness tester is used to test the hardness of 155MM, 175MM, and 8-inch artillery projectiles.

Description:

The tester consists of a metal frame, a tester carriage assembly, and a projectile carriage assembly. The machine is pneumatically powered.

Difference Between Models:
Original design.

2-470

Tabulated Data:

APE No. 21450000

Unit of Issue Each

Installation Data:

Length 90 in.

Width 27 in.

Height 62 in.

Weight 960 lbs

Utilities Required:

Air at 90 psi.

Production Capacity:

Depends on number of hardness readings to be taken on each projectile.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube 112 cu ft
 Weight 1560 lbs

Associated Equipment:

None.

Kits:

2145E001 KIT, Rockwell B Scale
 2145E002 KIT, Rockwell C Scale

APE 2146--DEVICE, LIFTING AND POSITIONING

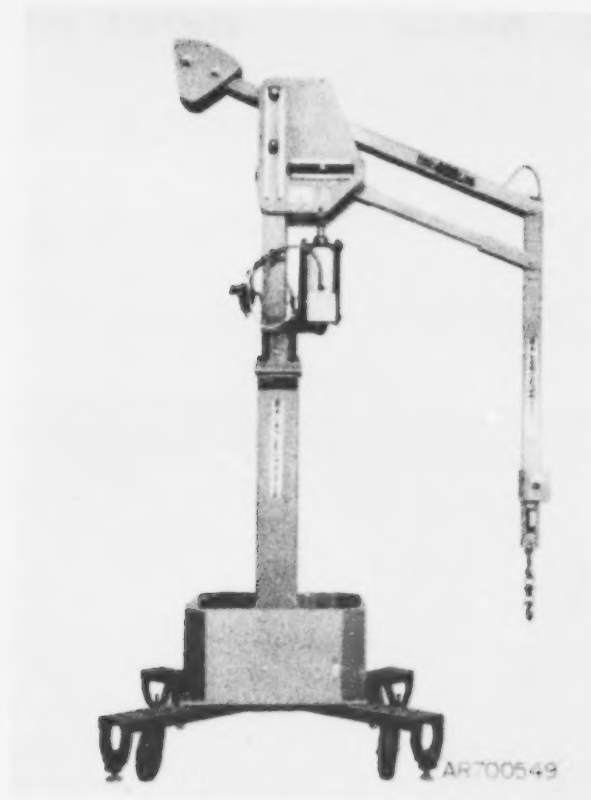


Figure 2-227.

Use:

The lifting and positioning device is used to lift and position heavy objects such as artillery projectiles and bombs with a 400 lb lifting capacity.

Description:

The device consists of a base on wheels, a center column, a counterweighted lift arm, and a pneumatic circuit.

Difference Between Models:
Original Design.

Tabulated Data:

APE No.	21460000
Unit of Issue	Each
Installation Data:	
Length	108 in.
Width	72 in.
Height	153 in.
Weight	not available
Utilities Required:	
Air at 100 psi.	

Production Capacity:
Not applicable.

Associated Equipment:
APE 1022M1, 1044M1.

Shipping Data:

Length 81.5 in.
Width 67 in.
Height 37 in.
Cube 178.0 cu ft
Weight 2053 lbs

Kits:

2146E001 KIT, Projectile Manipulator (155MM, 175MM, 8 Inch Army, 5 Inch Navy, 6 Inch Navy and 8 Inch Navy).

APE 2147--LINKER-DELINKER, POWERED, 20MM

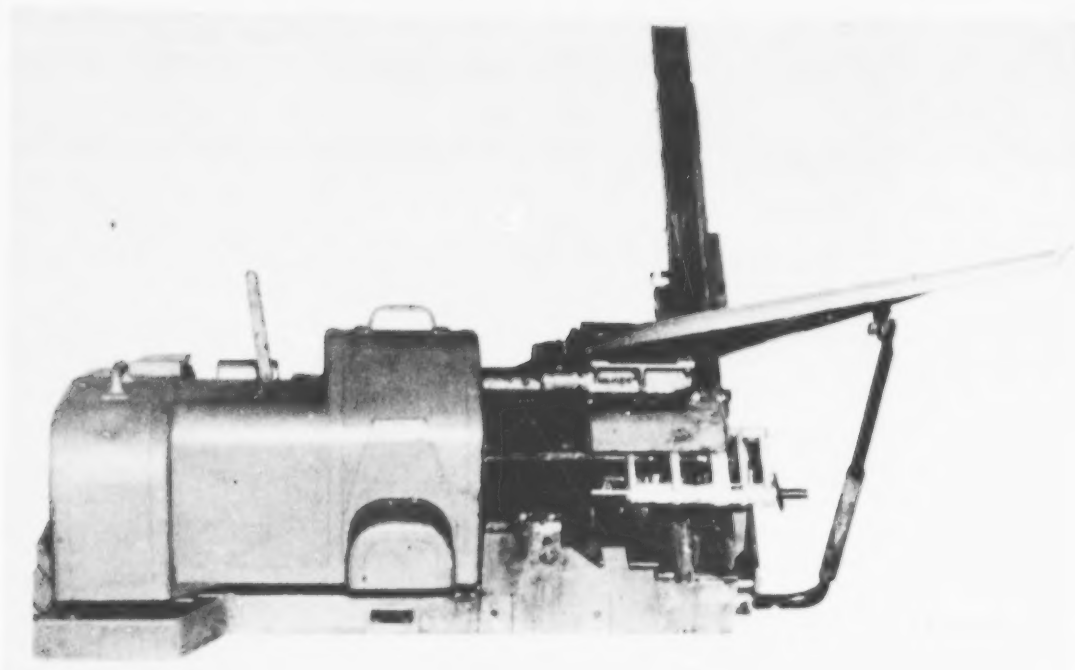


Figure 2-228.

Use:

The linker-delinker is used to link or delink 20MM cartridges with M3, M8E1, M10, or M24 links.

Description:

The linker consists of a cast frame, an electric motor, a drive assembly, and the linking or delinking kit applicable to the links and cartridges being linked or delinked.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21470000

Unit of Issue Each

Installation Data:

Length 57 in.

Width 48 in.

Height 34 in.

Weight 442 lbs

Utilities Required:

110 vac, single phase, 60 Hz,
5.1 amp.

Production Capacity:

Linking--150 cartridges per
minute; delinking--250 car-
tridges per minute.

Shipping Data:

Length 68 in.
 Width 29-1/2 in.
 Height 26 in.
 Cube 30.2 cu ft
 Weight not available

Associated Equipment:

None.

Kits:

2147E001 KIT, Linking, M3, M8E1
 and M10 Link
 2147E002 KIT, Delinking, M3,
 M8E1 and M10 Link
 2147E003 KIT, Linking, M24 Link
 2147E004 KIT, Delinking, M24
 Link

APE 2148M1--MACHINE, CRIMPING, 60 TON

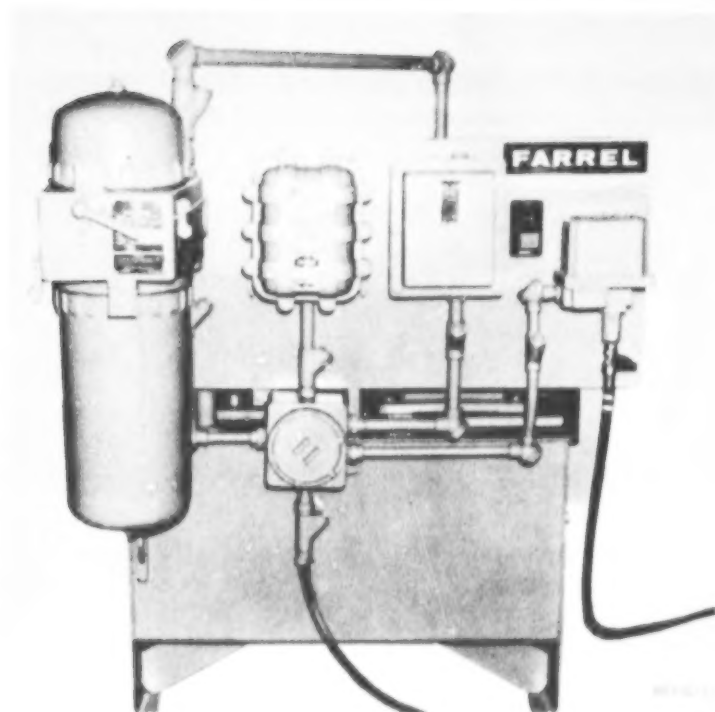


Figure 2-229.

Use:

The crimping machine is used to crimp 105MM projectiles to 105MM cartridge cases, M392 series.

Description:

The crimping machine consists of a crimping die assembled to a 60 ton hydraulic press. Pressure is supplied by an electrically operated hydraulic pumping unit.

Difference Between Models:

The APE 2148M1 has been modified to crimp 105MM, M392 cartridge and the original design APE 2148 was designed to crimp 40MM ammunition.

Tabulated Data:

APE No. 21480000M1
Unit of Issue Each

Installation Data:

PRESS

Length 73 in.
Width 25 in.
Height 44 in.
Weight 2242 lbs

PUMP

Length 48 in.
Width 54 in.
Height 56 in.
Weight 1596 lbs

Utilities Required:

220/440 vac, 60 Hz, 3 phase,
51/25.5 amps.

Production Capacity:

Not established.

Shipping Data:

PRESS

Length 83 in.
Width 45 in.
Height 60 in.
Cube 130 cu ft
Weight 3162 lbs

PUMP

Length 61 in.
Width 59 in.
Height 70 in.
Cube 146 cu ft
Weight 2352 lbs

Associated Equipment:

None.

Kits:

None.

APE 2150--DEVICE, PROJECTILES ROTATING

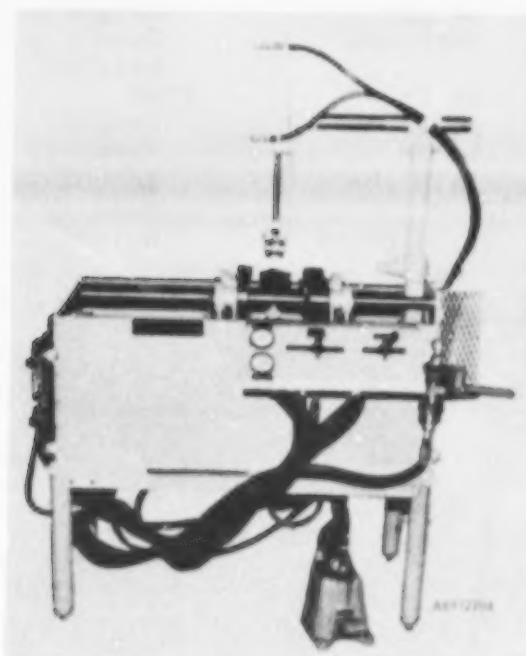


Figure 2-230.

Use:

The rotating device is used to rotate projectiles at 40 to 125 rpm. It can also be used to hold projectiles stationary when the brake is used. The device accommodates loaded 90MM through 8-inch projectiles.

Description:

The rotating device consists of a metal stand, a frame assembly containing the rotator, a brake assembly and a control panel.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21500000
Unit of Issue Each

Installation Data:

Length 45 in.
Width 24 in.
Height 60 in.
Weight 436 lbs

Utilities Required:

Air at 90 psi.

Production Capacity:

Depends on operation being performed.

Shipping Data:

Length 51 in.
 Width 27 in.
 Height 66 in.
 Cube 53 cu ft
 Weight 526 lbs

Associated Equipment:

None.

Kits:

None.

APE 2151--MACHINE, PRIMER REMOVER AND INSERTER

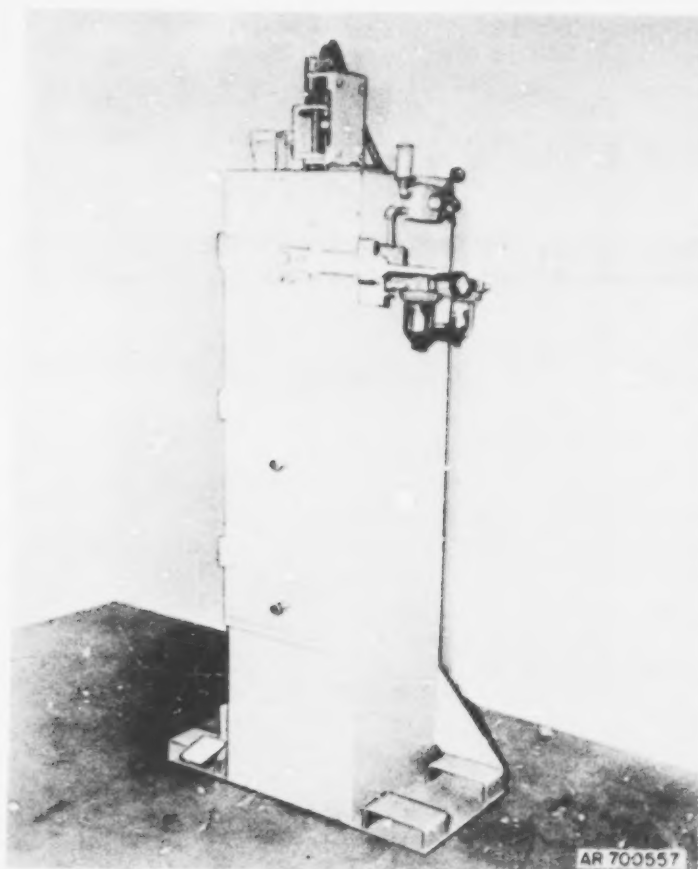


Figure 2-231.

Use:

The machine was developed to back out screw type primers from artillery cartridge cases; to insert threaded primers into cartridge cases; and to torque the primer on a complete round.

Description:

The machine consists of an operational shield, an air motor and remote controls to operate the machine.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21510000

Unit of Issue Each

Installation Data:

Length 22 in.

Width 34 in.

Height 72 in.

Weight 400 lbs

Utilities Required:

Air, 25 cfm at 80 psi.

Production Capacity:

Partial unthread--clean and insert 840 per shift; insert primer only--2600 per shift.

Shipping Data:

Length 24 in.
 Width 36 in.
 Height 84 in.
 Cube 42 cu ft
 Weight 500 lbs

Associated Equipment:

None.

Kits:

2151E001 Insert M58 primer into
 76MM cartridge case.
 2151E002 Insert M58 primer into
 75MM M35 cartridge
 case.

2151E003 Insert M78, M92, and
 M92E1 primers into 90MM
 M371 cartridge case.
 2151E004 Insert or remove M80
 & M86 primers on 105MM
 M115 & M150 cartridge
 cases.
 2151E005 Insert or remove M83
 primer on 105MM M148
 cartridge case.
 2151E006 Insert M58 primer into
 90MM M108 cartridge
 case.
 2151E007 Insert or remove M63
 primer on 105MM M341
 cartridge case.

APE 2153--CUTTER, CENTERING BAND

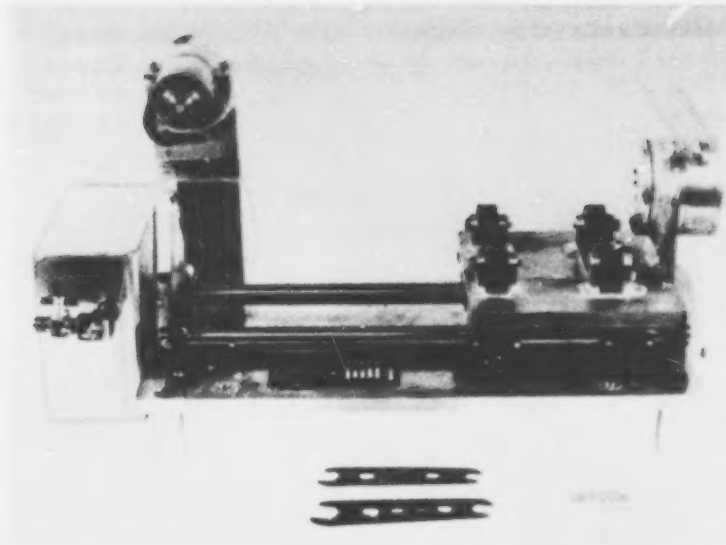


Figure 2-232.

Use:

The cutter is used to cut the plastic centering band from M392A2 (L 36A1) 105MM APDS-T projectiles.

Description:

The cutter consists of an aluminum frame, a projectile carriage, and a pneumatically operated cutter.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21530000
Unit of Issue Each
Installation Data:
Length 14-3/8 in.
Width 9-3/4 in.
Height 7 in.
Weight 34 lbs
Utilities Required:
Air at 90 psi.
Production Capacity:
150 bands per hour.

Shipping Data:

Length 40 in.
Width 18 in.
Height 16 in.
Cube 6-2/3 cu ft
Weight 92 lbs

Associated Equipment:

None.

Kits:

2153E001 ADAPTER, Complete Cartridge

APE 2154--RACK, PROJECTILE HOLDING



Figure 2-233.

Use:

The rack is used to move 105MM projectiles from one operation to the next in a maintenance line and to hold projectiles during a cooling cycle.

Description:

The rack is constructed of plywood and hardboard. It holds 30 projectiles. It mounts on the frame of the APE 1176 ammunition cart.

Difference Between Models:

Original design.

Tabulated Data:

APE No.	21540000
Unit of Issue	Each
Installation Data:	
Length	33-3/4 in.
Width	28-1/2 in.
Height	4-1/8 in.
Weight	42 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 36 in.
Width 32 in.
Height 8 in.
Cube 5.3 cu ft
Weight 75 lbs

Associated Equipment:
APE 1176.

Kits:
None.

All Data on Pages 2-486 and 2-487, Including Figure 2-234 Deleted.

APE 2155M1--MACHINE, CENTERING BAND TURNING

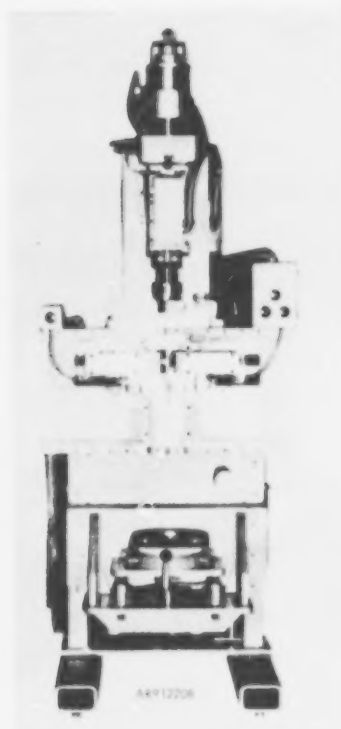


Figure 2-235.

Use:

The centering band turning machine is used to turn the plastic centering band on M392 series, 105MM APDS-T projectiles. Centering bands can be turned on complete rounds or on projectiles separated from cartridge cases.

Description:

The machine consists of a welded metal frame, a turning assembly powered by an air motor, a jaw assembly, a projectile height adjusting assembly, and a pneumatic control assembly.

Difference Between Models:

The original APE 2155 was a standard lathe with special soft jaws on the chuck.

Tabulated Data:

APE No. 21550000M1
Unit of Issue Each

Installation Data:

Length 38 in.
Width 48 in.
Height 102 in.
Weight 2725 lbs

Utilities Required:

Air at 90 psi and 75 cfm.

Production Capacity:
120 per hour.

Associated Equipment:
None.

Shipping Data:

Length 110 in.
Width 50 in.
Height 64-1/2 in.
Cube 205 cu ft
Weight 3575 lbs

Kits:

2155E001 KIT, Centering Band
Diameter Check
2155E002 KIT, Projectile Sup-
port
2155E003 KIT, Machine Setup

APE 2156--MACHINE, HAND GRENADE DEFUZZING

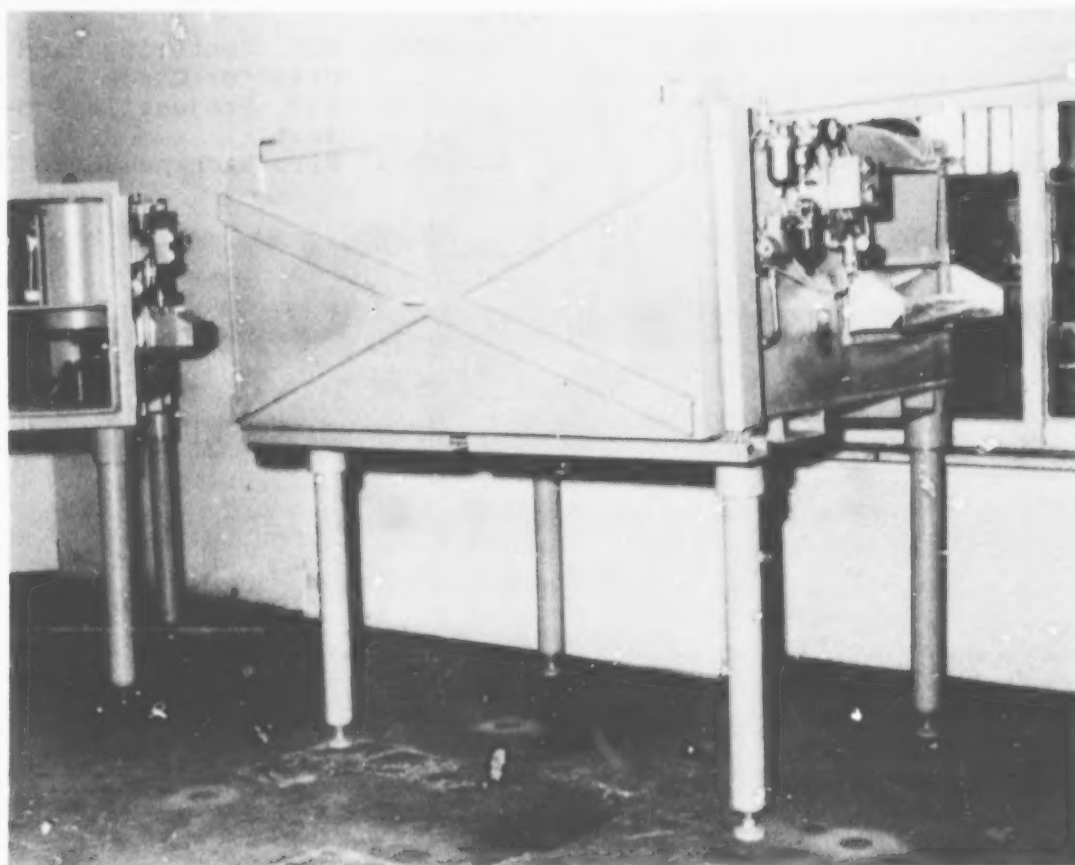


Figure 2-236.

Use:

The hand grenade defuzzing machine is used to remove grenade fuzes at a high production rate. The actual defuzzing operation is accomplished within the operational shield.

Description:

The machine is pneumatically driven and controlled. It consists of a protective barricade, a defuzzing mechanism, a grenade

transfer system, and a control and drive system. The grenades to be defuzed are manually loaded onto the transport belt on one side of the machine. They are then mechanically transported into the barricade, thru the defuzzing mechanism, and out on the opposite side of the barricade.

Difference Between Models:
Original design.

Tabulated Data:

Ape No. 21560000
Unit of Issue Each
Installation Data:
Length 52 in.
Width 68 in.
Height (less
stack) 63 in.
Weight 4400 lbs

Utilities Required:

Air at 80 psi, 40 cfm.
Production Capacity:
500 grenades per hour.

Shipping Data:

MACHINE

Length 60 in.
Width 82 in.
Height 72 in.
Cube 205 cu ft
Weight 5300 lbs

STACK

Length 54 in.
Width 35 in.
Height 35 in.
Cube 38.3 cu ft
Weight 400 lbs

Associated Equipment:

APE 1213M1 (For delay fuze
frag grenades only.)

Kits:

2156E001 KIT, Remove M213 delay
fuzes from M33 and M67
hand grenades
2156E002 Device, Access Door
Lifting
2156E003 KIT, Remove fuzes from
M15 Smoke Grenades
2156E004 KIT, Remove fuzes from
M34 Smoke Grenades

APE 2157--FIXTURE, INSTALLATION CARTRIDGE CASE LINER



Figure 2-237.

Use:

The fixture is used to expand liners against the periphery of cartridge cases.

Description:

The fixture consists of a rubber bladder with end caps, a central perforated tube, an air regulator and a foot valve.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21570000
Unit of Issue Each
Installation Data:
Length 2-3/4 in.
Width 2-3/4 in.

Height 24 in.
Weight 4 lbs
Utilities Required:
Air at 90 psi.
Production Capacity:
Not available.

Shipping Data:

Length 26 in.
Width 5 in.
Height 5 in.
Cube 650 cu in
Weight 5 lbs

Associated Equipment:
None.

Kits:
None.

APE 2158 -- FIXTURE, PROJECTILE TURNING

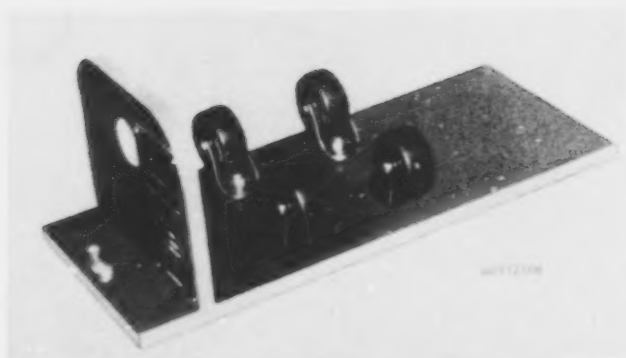


Figure 2-238.

Use:

The projectile turning fixture is used to support projectiles while the markings are being removed. It is designed for use on projectiles, 105MM, APDS-T, M392A2 (L36).

Description:

The fixture consists of a metal base, four modified casters, and a stop for the projectiles.

Difference Between Models:
Original design.

(2-493 Blank)/2-494

Tabulated Data:

APE No. 21580000

Unit of Issue Each

Installation Data:

Length 16 in.

Width 6-1/2 in.

Height 5-3/4 in.

Weight 8 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 18 in.
 Width 9 in.
 Height 9 in.
 Cube 85 cu ft
 Weight 12 lbs

Associated Equipment

None.

Kits:

None.

APE 2159--FIXTURE, PROPELLANT LEVEL CHECK

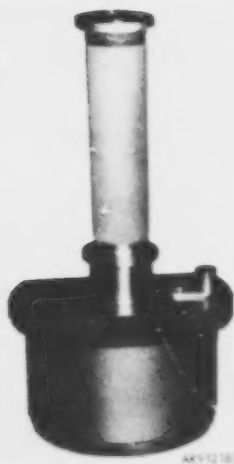


Figure 2-239.

Use:

The fixture is used to ascertain if there is enough space for insertion of a projectile between the mouth of the cartridge case and the top of the propellant charge in the cartridge case for the 105MM, APDS-T, M392A2 (L36).

Description:

The fixture is a piece of round aluminum bar machined to fit inside a 105MM cartridge case mouth. Stops are provided to tell the operator when the gap is sufficient. A handle is machined on the upper end of the fixture. A grounding clamp is assembled to the fixture.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21590000
Unit of Issue Each
Installation Data:
Length 4-1/4 in.
Width 4-1/4 in.
Height 8-5/8 in.
Weight 4 lbs 9 oz
Utilities Required:
None.
Production Capacity:
Not applicable.

Shipping Data:

Length 5 in.
Width 5 in.
Height 9 in.
Cube 225 cu in
Weight 6 lbs

Associated Equipment:

None.

Kits:

2159E001 KIT, Extension (2.975
inch gap)

APE 2160--PRESS, AMMUNITION COMPONENT

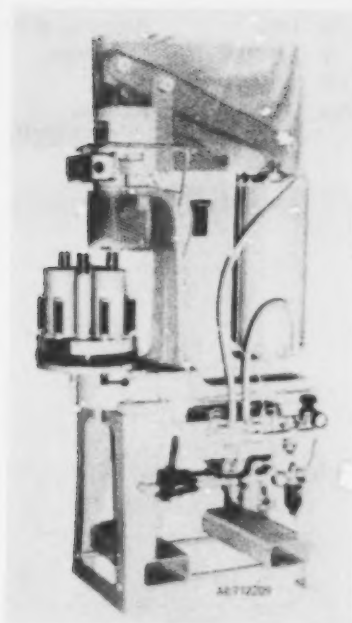


Figure 2-240.

Use:

The ammunition component press is used to insert the base plug into a 105MM, APDS-T M392A2 projectile and to press and stake pins in the 8 In M404 projectile.

Description:

The press is a modified pneumatic arbor press. Features include two hand, anti-tie down controls and guards over the moving parts of the press. Two accessories are required with this press.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21600000
Unit of Issue Each

Installation Data:

Length 29 in.
Width 47 in.
Height 90 in.
Weight 1345 lbs

Utilities Required:

Air at 90 psi and 10 cfm.

Production Capacity:

250 projectiles per hour
(2 operators).

Shipping Data:

Length 55-1/2 in.
 Width 37-1/2 in.
 Height 93 in.
 Cube 112 cu ft
 Weight 2250 lbs

Associated Equipment:
 None.

Kits:

2160E001 Table, Ammunition Com-
 ponent Indexing
 2160E002 KIT, Base Plug In-
 section, 105MM APDS-T
 M392A2 Projectile
 2160E003 KIT, Projectile
 Pinning and Swaging

APE 2161--EQUIPMENT, TRACER REMOVAL AND REPLACEMENT,
105MM, APDS-T, M392A2 PROJECTILES

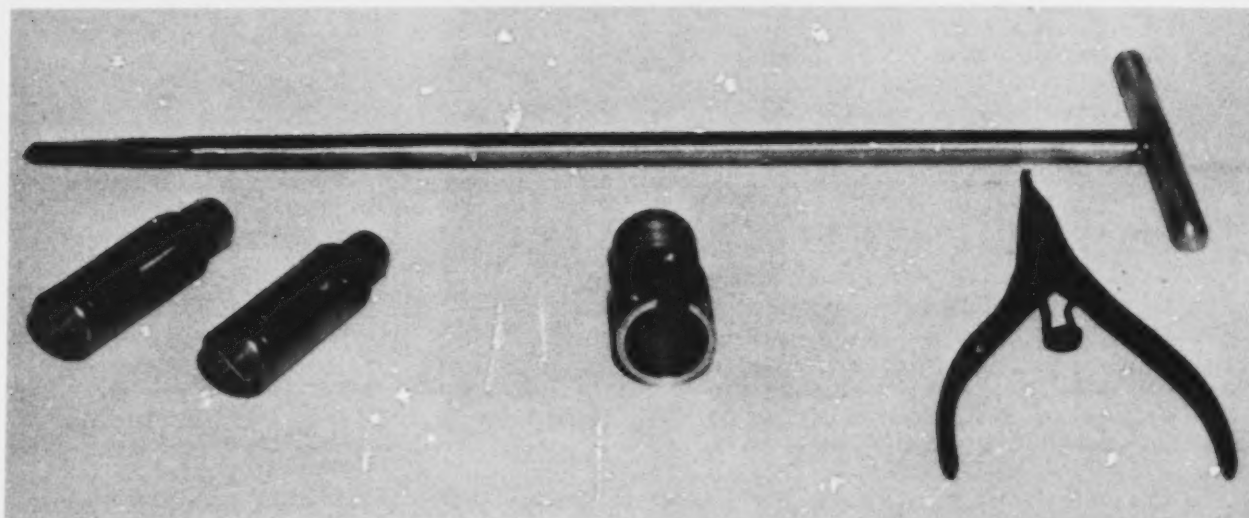


Figure 2-241.

Use:

The tracer removal and replacement equipment is used to remove and replace M13 tracer in 105MM, APDS-T, M392A2 projectiles.

Description:

The equipment consists of one plug wrench assembly (0.605 inch to 0.610 inch), one plug wrench assembly (0.623 inch to 0.627 inch),

25 heat shields, one plug extractor, and one pair of lock ring pliers. The user will fabricate a tracer igniting tool, a non-sparking pick to remove closing disc from plug, and a table or holder to hold 25 M392A2 projectiles during tracer burnout.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21610000
 Unit of Issue Each
 Installation Data:
 Length not applicable
 Width not applicable
 Height not applicable
 Weight 9 lbs
 Utilities Required:
 None.
 Production Capacity:
 Not available.

Associated Equipment:

APE 1204, APE 1204E016, torque wrench (150-inch pound rating), oxyacetylene welding equipment to heat the tracer igniting tool, equipment to clean the tracer cavity in the M392A2 projectile.

Kits:

None.

Shipping Data:

Length 20-1/2 in.
 Width 7-3/4 in.
 Height 2-1/2 in.
 Cube 1 cu ft
 Weight 12 lbs

APE 2162--EQUIPMENT, ROTATING BAND REPLACEMENT

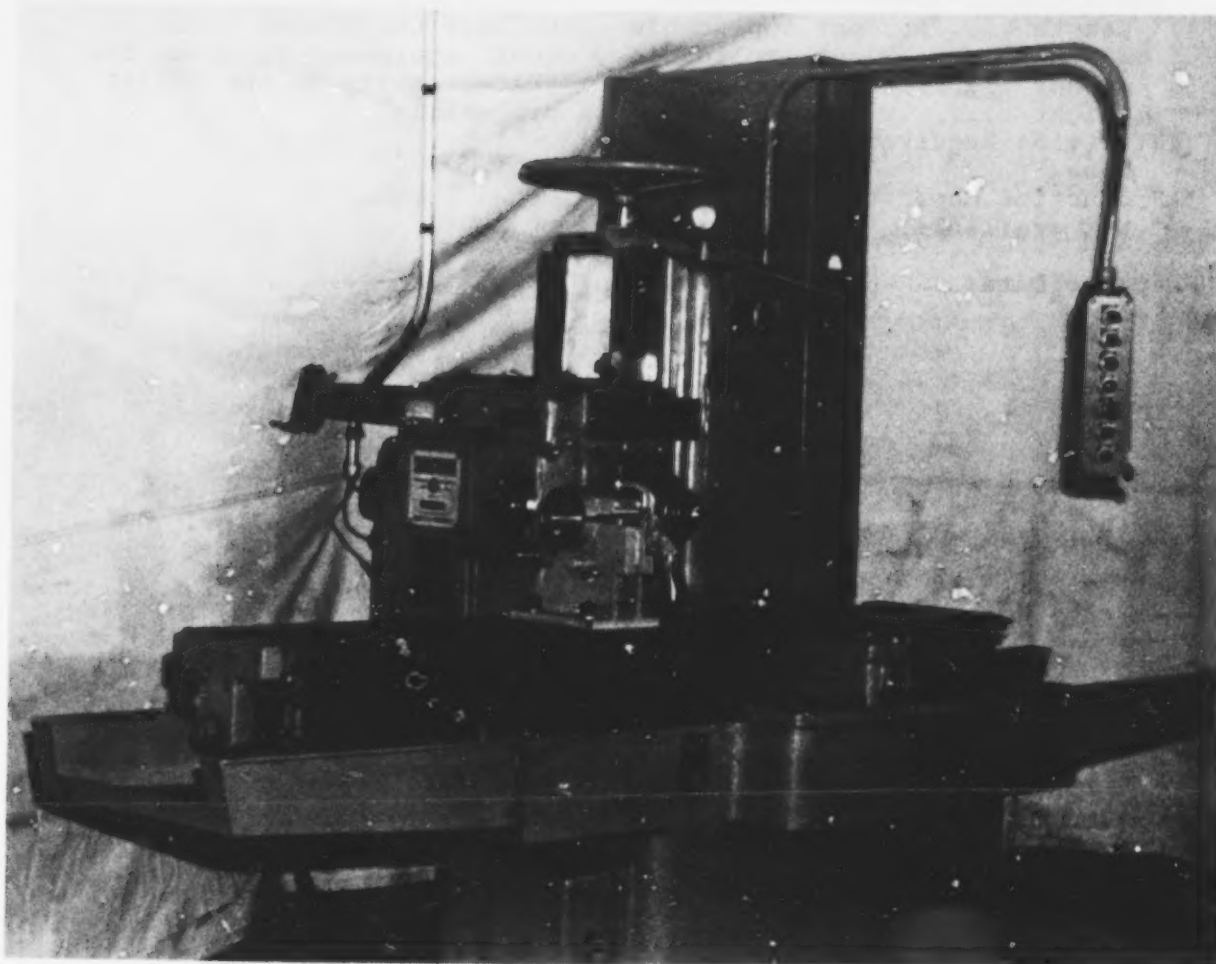


Figure 2-242.

Use:

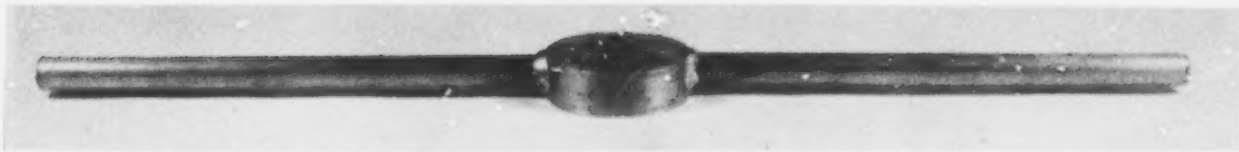
This equipment is used to provide the necessary apparatus to remove and replace the fiber rotating band on the 105MM, APDS-T, M392A2.

Description:

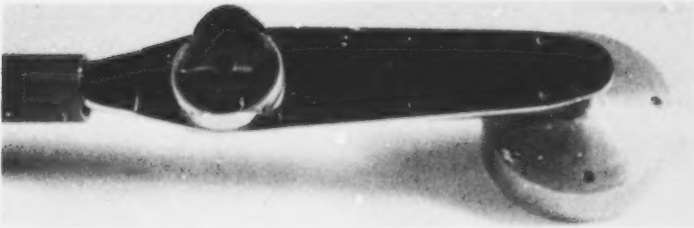
The equipment is made up of nine units: a table mounted vise, a rotating band spreader tool, a rotating band facing lathe tool-

ing, rotating band, slot cutting fixture, a milling machine, a base plate torque fixture, a base plate loosening fixture, a bench mounted disassemble/assembly projectile fixture, and a sub-projectile clearance check fixture.

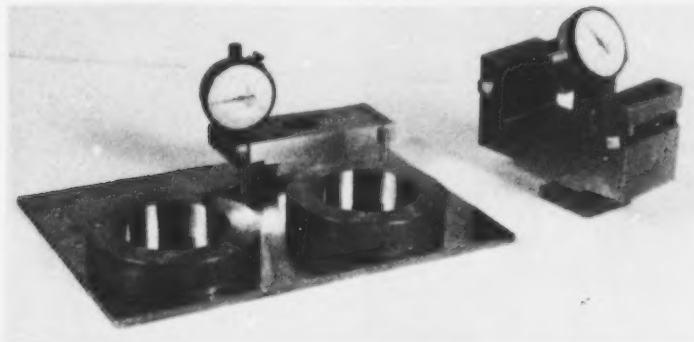
Difference Between Models:
Original design.



BASE PLATE LOOSENING FIXTURE



BASE PLATE TORQUE FIXTURE



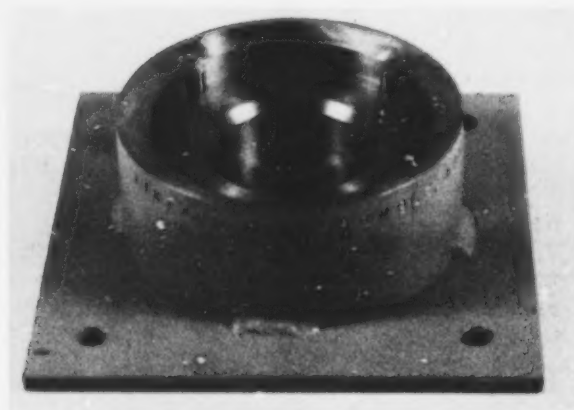
ROTATING BAND FACING LATHE TOOLING



CLEARANCE CHECK FIXTURE



SLOT CUTTING FIXTURE



BENCH MOUNTED ASSEMBLY FIXTURE

Figure 2-242

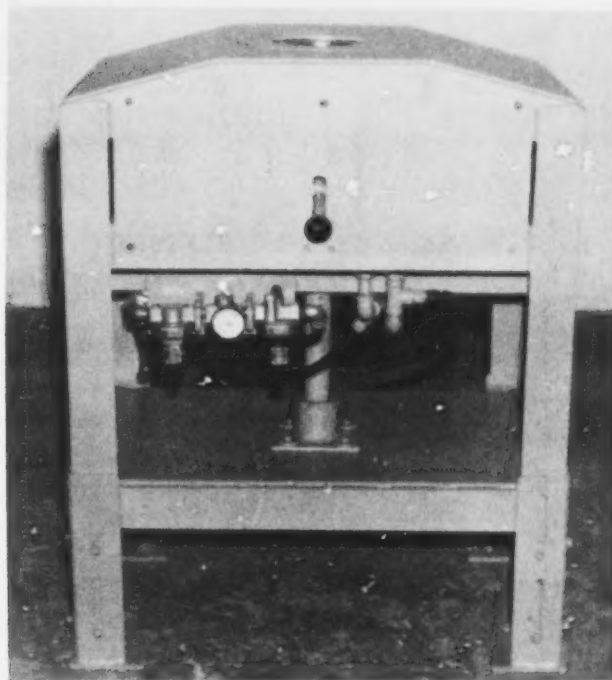
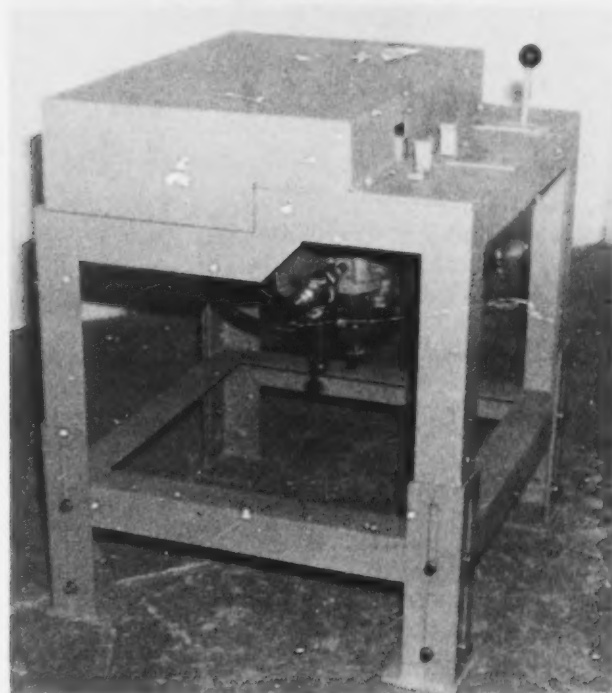


TABLE MOUNTED VISE



ROTATING BAND SPREADER TOOL

Figure 2-242

Tabulated Data:

APE No. 21620000
 Unit of Issue: Each
 Installation Data:

A001 VISE

Length 32 in.
 Width 26 in.
 Height 40 in.
 Weight 500 lbs

A002 SPREADER

Length 28 in.
 Width 28 in.
 Height 33 in.
 Weight 200 lbs

A003 LATHE

Length 74 in.
 Width 36 in.
 Height 54 in.
 Weight (tooling
 only) 26 lbs

A004 CUTTING FIXTURE

Length 9 in.
 Width 13 in.
 Height 12 in.
 Weight 35 lbs

A005 MILLING MACHINE

Length 9 ft
 Width 6 ft
 Height 8 ft
 Weight 8,500 lbs

A006 TORQUE FIXTURE

Length 38 in.
 Width 5 in.
 Height 4 in.
 Weight 5 lbs

A007 LOOSENING FIXTURE

Length 35 in.
 Width 5 in.
 Height 2 in.
 Weight 4 lbs

A008 DISASSEMBLE/ASSEMBLE

Length 6 in.
 Width 5 in.
 Height 2 in.
 Weight 7 lbs

A009 CLEARANCE CHECK

Length 13 in.
 Width 8 in.
 Height 20 in.
 Weight 40 lbs

Utilities Required:

A001 - air at 100 psi; A002 -
 air at 100 psi; A003 - 220/
 440V, 60 Hz, 3 phase, 15 hp;
 A005 - 220/440 VAC, 60 Hz, 3
 phase, 60 cycle, motor sizes -
 7.5 hp, 1 hp, .75 hp, .25 hp.

Production Capacity:

In a line set up with 2 ea
 A001, 1 ea A002, 2 ea A003, 1
 ea A004, 1 ea A005, 1 ea A006,
 1 ea A007, 4 ea A008, 1 ea
 A009 - 600 per 8 hr shift.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

APE 2155M1.

Kits:

None.

APE 2163--SUBPROJECTILE ULTRASONIC INSPECTION EQUIPMENT

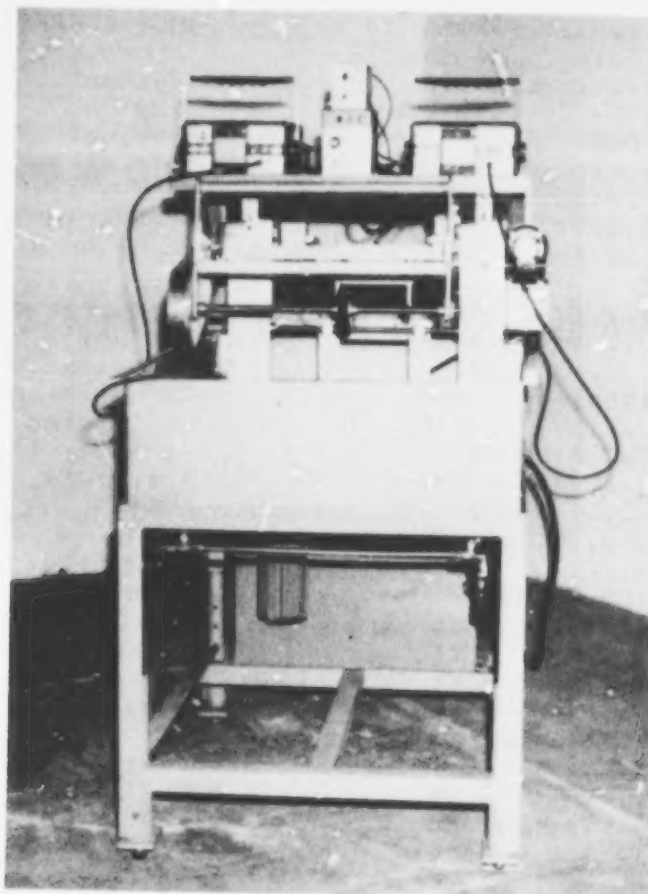


Figure 2-243.

Use:

The subprojectile ultrasonic inspection equipment is used for ultrasonic non-destructive testing by either direct contact or immersion techniques. It can be used for single or dual transducer testing.

sonic flow detector, a battery box, twelve batteries, a test block and a manual for the ultrasonic flow detector.

Difference Between Models:
Original design.

Description:

The ultrasonic inspection equipment consists of a portable ultra-

Tabulated Data:

APE No. 21630000

Unit of Issue Each

Installation Data:

Length 14 in.

Width 14 in.

Height 8 in.

Weight 16-1/4 lbs

Utilities Required:

18 VDC, 6.3 watts.

Production Capacity:

Not applicable.

Kits:

2163E001 Transducer (cylindrical focus)

2163E002 Transducer (spherical focus)

2163E003 Waterproof cable

2163E004 105MM APDS-T Subprojectile handling equipment

2163E005 Battery charger

2163E006 Alarm light kit

2163E007 Alinement projectile

Shipping Data:

Length 16 in.

Width 18 in.

Height 10 in.

Cube 1.7 cu ft

Weight 21 lbs

APE 2164--CARTRIDGE CASE RESIZE MACHINE

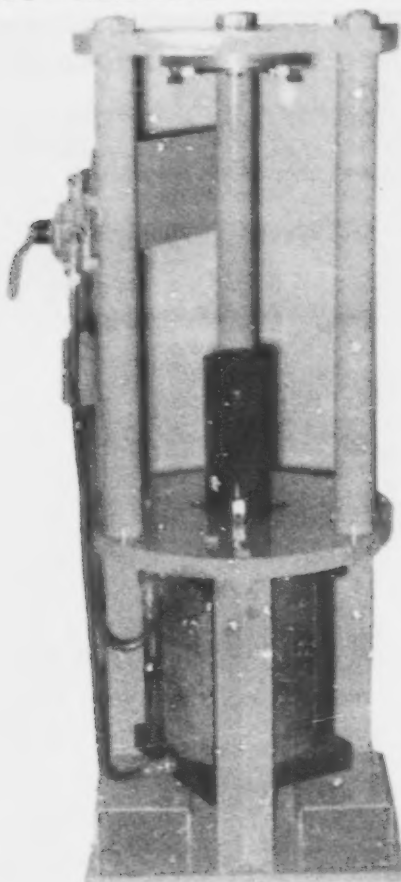


Figure 2-243.1.

Use:

The Cartridge Case Resize Machine, with available accessories, is capable of performing resize operations on deprimed 105mm M115 cartridge cases only.

Description:

The Cartridge Case Resize Machine consists of a base plant, operating table to which the resize cylinder is mounted, three bolster rods, an upper mounting plate, and pneumatic control panel.

Difference Between Models:
Original design

Tabulated Data:

APE No. 21640000
Unit of Issue Each
Installation Data:
Length 24 in.
Width 24 in.
Height 63 in.
Weight 1300 in.

Utilities Required:

Air at 80 psi and 100 cfm

Production Capacity:

4 cartridges per minute

Associated Equipment:

None

Kits:
None

Shipping Data:

Length	48 in.
Width	48 in.
Height	86 in.
Cube	21 cu. ft.
Weight	1700 lbs.

APE 2166--FIXTURE, PROJECTILE FUZEWELL BLANKING

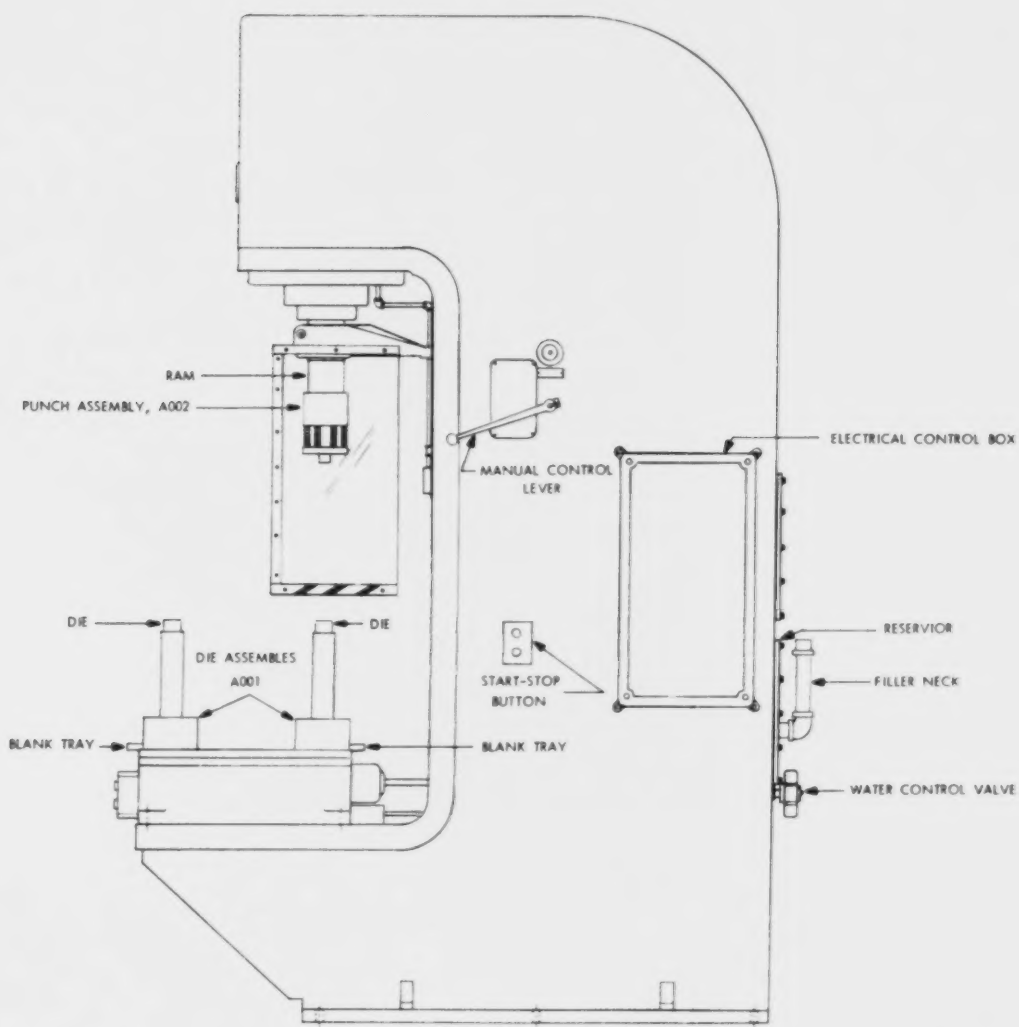


Figure 2-245.

Use:

The projectile fuze well blanking fixture is used to remove the bottom of the fuze well cavity of the 105MM M84B1 smoke projectile.

semblies, a punch assembly, two blanking trays, a table cover, and a guard assembly.

Difference Between Models:
Original design.

Description:

The fixturing consists of a 100 ton hydraulic press, two die as-

Tabulated Data:

APE No. 21660000
Unit of Issue Each
Installation Data:
Length 103 in.
Width 40 in.
Height 155 in.
Weight 29,425 lbs
Utilities Required:
220/440 volt, 3 phase, 60
cycle (for 50 hp motor), motor
amp draw - 125 amp at 220
volts, 65 amp at 440 volts.
Branch circuit protection -
350 amp at 220 volts, 175 amp
at 440 volts.
Production Capacity:
3 projectiles/minute maximum.

Shipping Data

BASIC PRESS

Length 15 ft
Width 5 ft
Height 9 ft 1 in.
Cube 681 cu ft
Weight 28,600 lbs

BOX OF FIXTURES

Length 39 in.
Width 38 in.
Height 28 in.
Cube 24 cu ft
Weight 825 lbs

Associated Equipment:

None.

Kits:

None.

APE 2167--FIXTURE, RESIZING, PROJECTILE I.D.

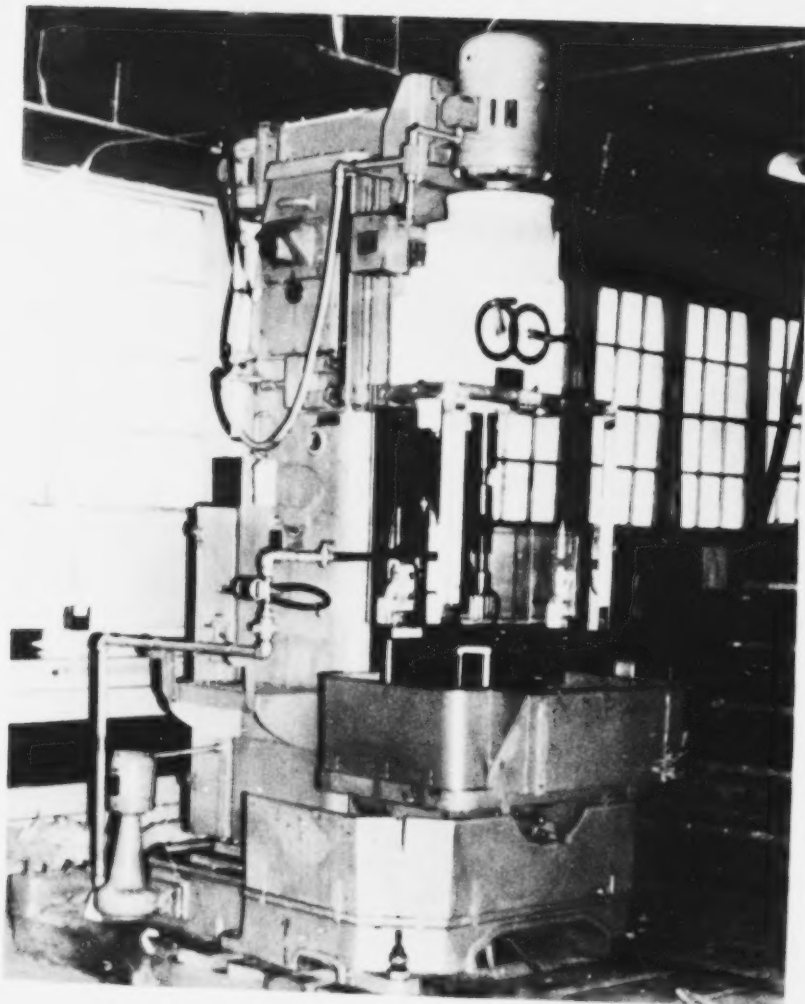


Figure 2-246.

Use:

The projectile ID resizing fixturing is used to ream the canister cavity of the 105MM smoke projectile, M84 series.

holding fixture, a reamer assembly, and a guard assembly.

Difference Between Models:
Original design.

Description:

The fixturing consists of a hydraulic drill press, a projectile

Tabulated Data:

APE No. 21670000

Unit of Issue Each

Installation Data:

Length 67 in.

Width 67 in.

Height 118 in.

Weight 10,800 pounds

Utilities Required:

220/440 volt, 3 phase, 60

cycle, 3 motors - combined

hp - 9-3/4 - combined motor

amp draw - 25 amps at 220

volts, 13 amps at 440 volts

branch circuit protection -

225 amp at 220 volts, 103

amp at 440 volts.

Production Capacity:

40 projectiles per hour.

Shipping Data:

Length 132 in.

Width 79 in.

Height 126 in.

Cube 761 cu ft

Weight 12,110 lbs

Associated Equipment:

None.

Kits:

None.

APE 2168--DEVICE, PROJECTILE LIFT

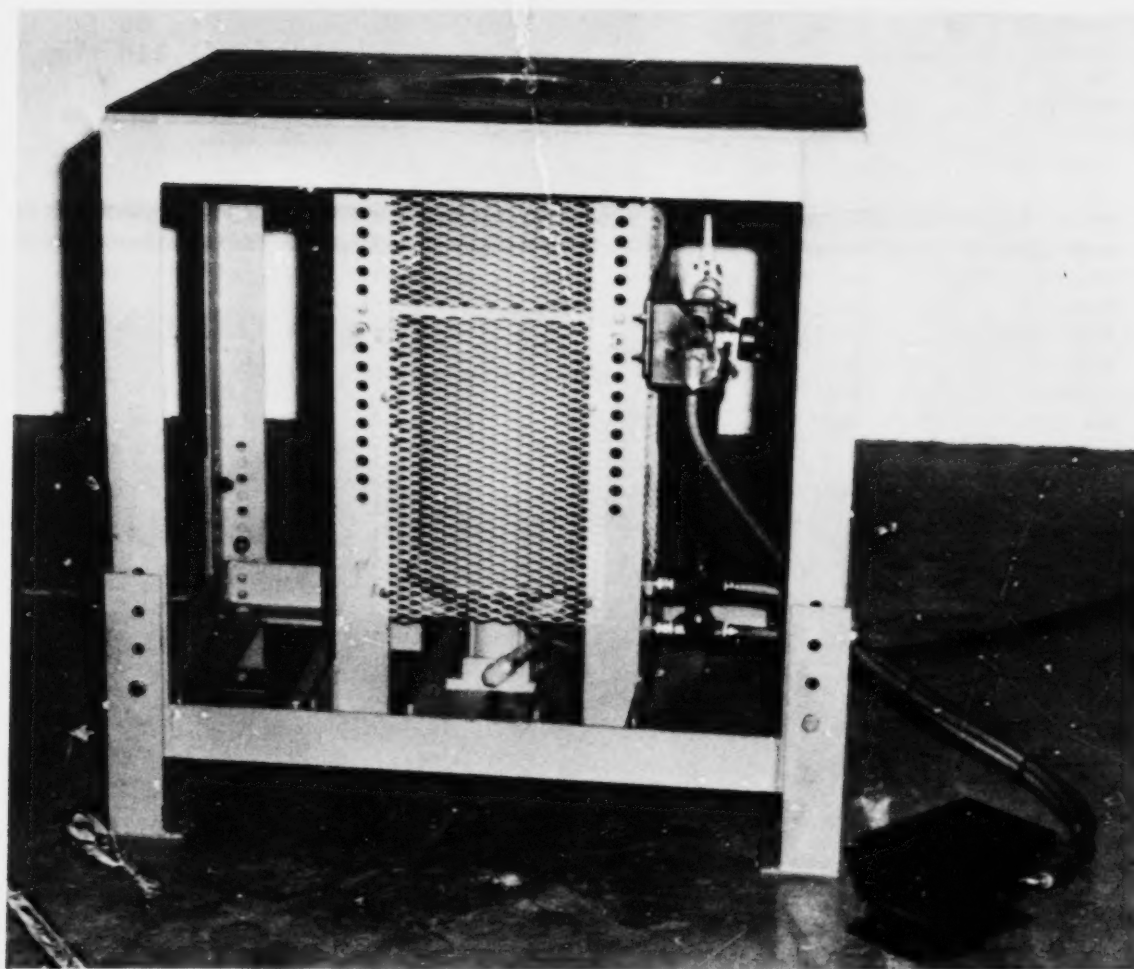


Figure 2-247.

Use:

The projectile lift device is used to raise and lower heavy projectiles, 155MM through 8-inch, to and from an overhead monorail conveyor.

Description:

The projectile lift device consists of a table with a pneumatic

operated lift that is actuated by a foot valve. The user must attach 6-inch to 9-inch long chain and hook assemblies to the APE 1044M1 monorail j-hooks when using this device.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21680000
 Unit of Issue Each
 Installation Data:
 Length 36 in.
 Width 24 in.
 Height 34 in.
 Weight 627 lbs
 Utilities Required:
 Air at 80 to 100 psi.
 Production Capacity:
 Not applicable.

Shipping Data:

Length 45 in.
 Width 32 in.
 Height 46 in.
 Cube 53 cu ft
 Weight 770 lbs

Associated Equipment:

APE 1044M1.

Kits:

None.

APE 2169--EQUIPMENT, WINDSHIELD CAP REMOVAL AND CONTINUITY TEST

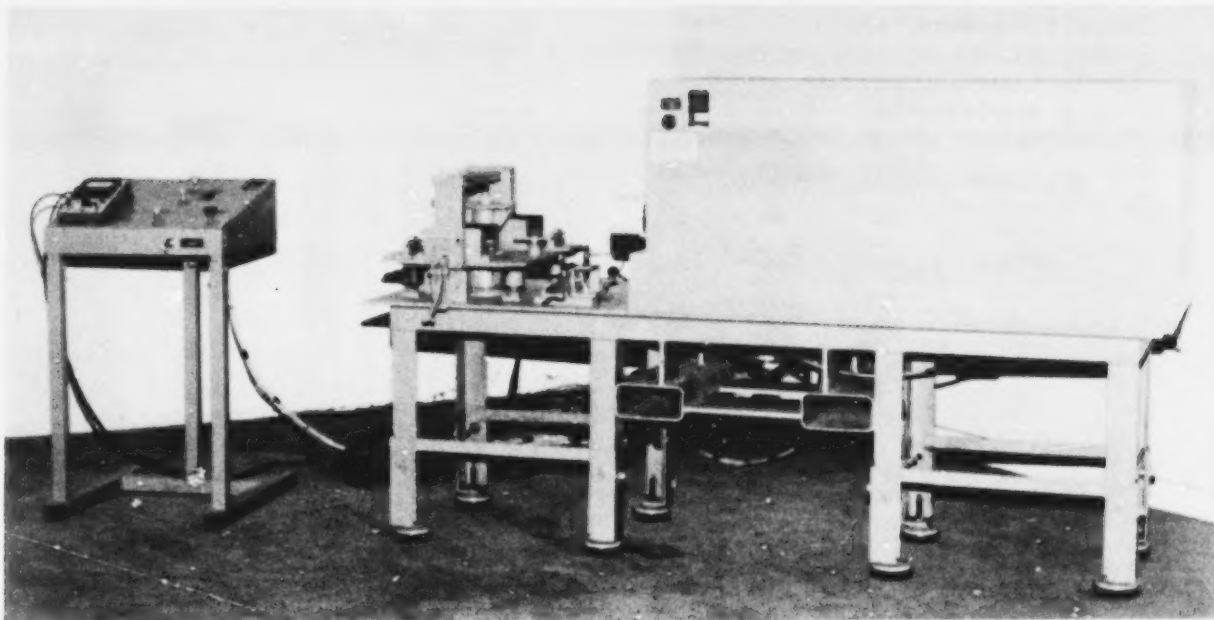


Figure 2-248.

Use:

The windshield cap removal machine is used to perform two operations on two 152MM projectiles or cartridges at the same time. The machine removes the windshield cap and power supply from a projectile or cartridge and another projectile or cartridge that has gone through the removal operation has a continuity test performed on it. The two operations are controlled independently at a control console located in a remote site.

Description:

The equipment consists of a removal machine and a control con-

sole. The removal machine frame houses the clamp assembly, the rotary shaft support assembly, the nose cap removal assembly, and the pneumatic assembly. The clamp assembly has two V-Blocks and is rotated 180 degrees to accomplish the removal and continuity test operations. The control console houses the pneumatic controls for the removal operation and the milliohmeter for the continuity test.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21690000
 Unit of Issue Each
 Installation Data:

REMOVAL MACHINE

Length 92 in.
 Width 36 in.
 Height 56 in.
 Weight 1,605 lbs

CONTROL CONSOLE

Length 28 in.
 Width 24 in.
 Height 42 in.
 Weight 108 lbs

Utilities Required:

Air at 85 psi, 60 cfm.
 Production Capacity:
 1 projectile per minute.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

2169E001 Base Plug and Fuze
 Lock Cup Removal Kit

APE 2170--CARTRIDGE CASE CUTOFF MACHINE

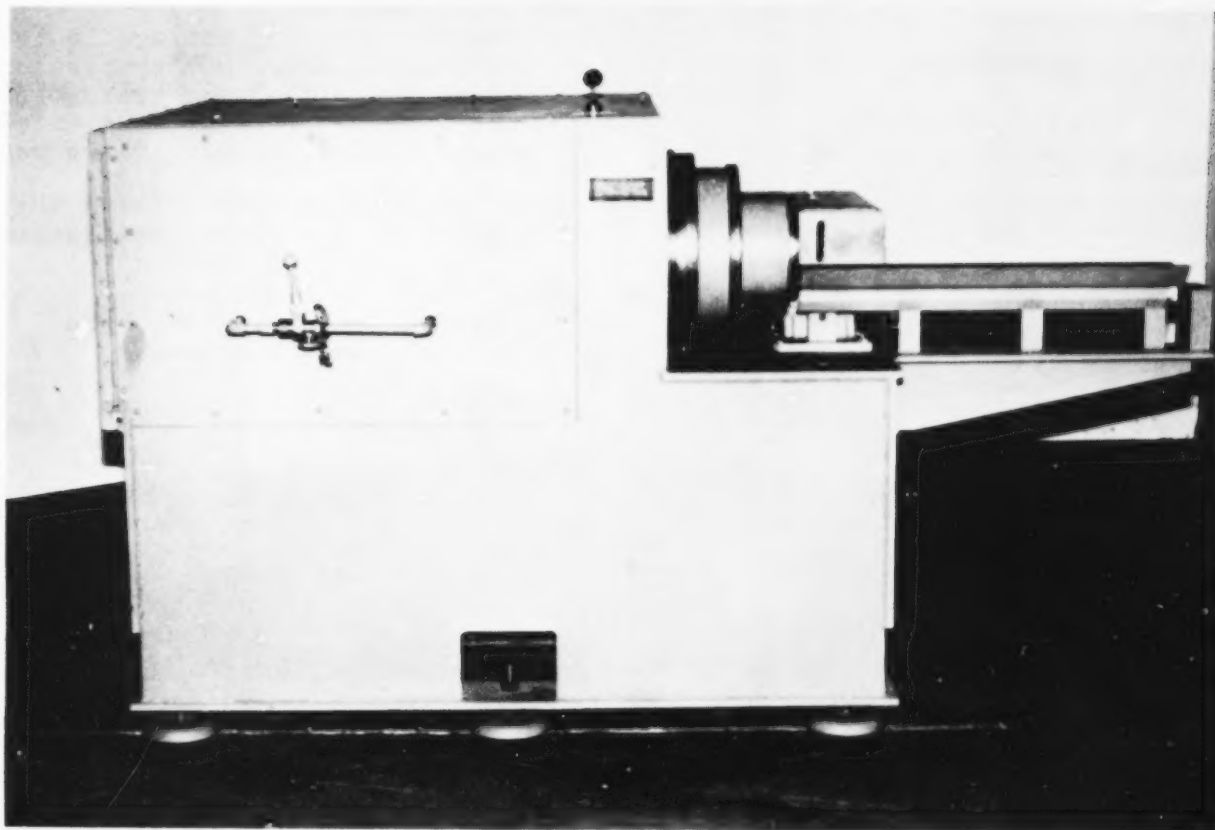


Figure 2-249.

Use:

The cartridge case cutoff machine is used to cut combustible cartridge cases to separate them from 152MM projectiles. The machine is to be operated remotely by placing the hydraulic pump assembly behind a substantial dividing wall.

Description:

The machine consists of a base assembly, cutter assembly, cartridge

cradle assembly, spindle assembly, spindle drive assembly, pneumatic assembly, hydraulic pump assembly, and cutter guard assembly. The machine is air and hydraulic operated.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21700000

Unit of Issue Each

Installation Data:

MACHINE

Length 56-3/4 in.

Width 88-5/8 in.

Height 51-13/16 in.

Weight 3,650 lbs

HYDRAULIC PUMP ASSEMBLY

Length 15 in.

Width 8 in.

Height 13 in.

Weight not available

Utilities Required:

Air at 95 psi.

Production Capacity:

30 per hour.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2171--TORQUE FIXTURE, PROJECTILE BASE

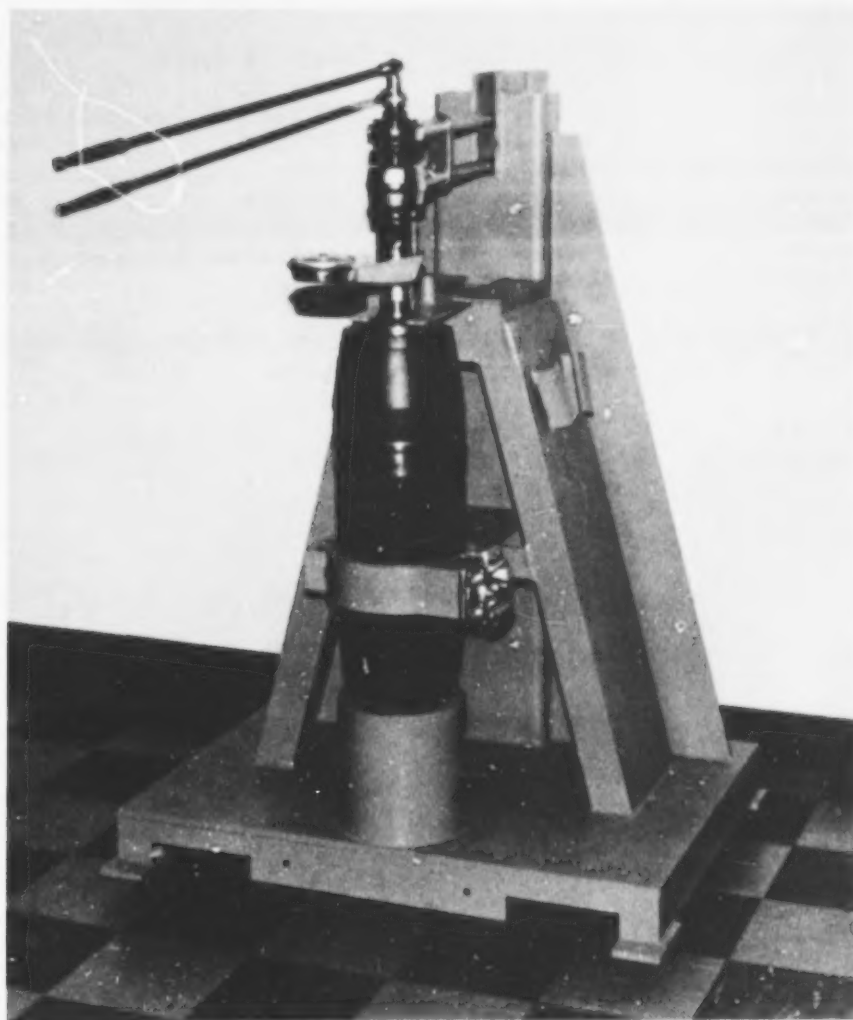


Figure 2-250.

Use:

The projectile base torque fixture is used to apply a specified assembly torque to the base plug on an 8-inch HE M404 projectile.

Description:

The equipment consists of a fixture that holds the projectile

securely in a base-up position, a pin-wrench adapter assembly, and a manually operated torquing assembly.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 21710000

Unit of Issue Each

Installation Data:

Length 46-1/2 in.

Width 37 in.

Height 54 in.

Weight 655 lbs

Utilities Required:

None.

Production Capacity:

Depends on operator skill.

Shipping Data:

Length 43 in.

Width 38 in.

Height 56 in.

Cube 53 cu ft

Weight 770 lbs

Associated Equipment:

None.

Kits:

None.

APE 2173--EQUIPMENT, PROJECTILE BODY DRILLING

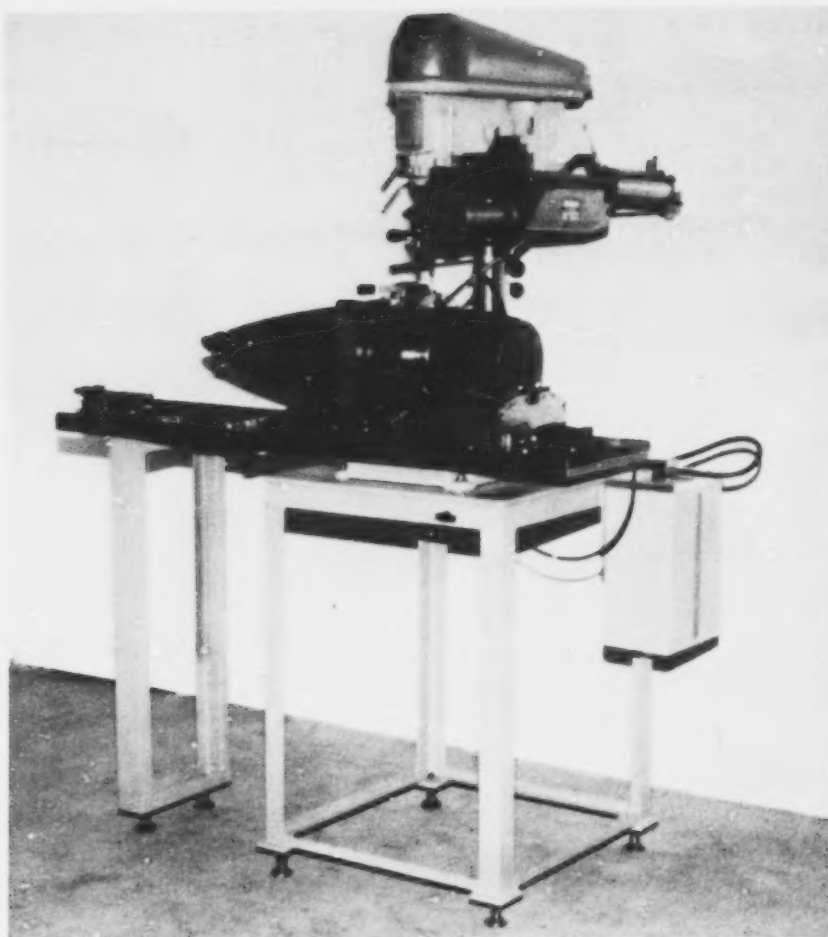


Figure 2-251.

Use:

The projectile body drilling equipment is used to drill six holes in the base of 8-inch M404 projectile bodies for retrofit operations.

Description:

The equipment consists of a bench mounted drill press, projectile

clamping carriage and carriage guide. The projectile clamping carriage is equipped with a positioning device to equally space the six holes.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 21730000
 Unit of Issue Each
 Installation Data:
 Length 54 in.
 Width 32 in.
 Height 70-3/4 in.
 Weight 600 lbs
 Utilities Required:
 115 V AC, 60 Hz, single
 phase.
 Production Capacity:
 15 projectiles per hour.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

2173E001 Power Feed Attachment
 2173E002 Coolant Unit, Spray
 Mist
 2173E003 Grinder, Drill Bit

APE 2174 - PRESS, PROJECTILE PINNING AND STAKING

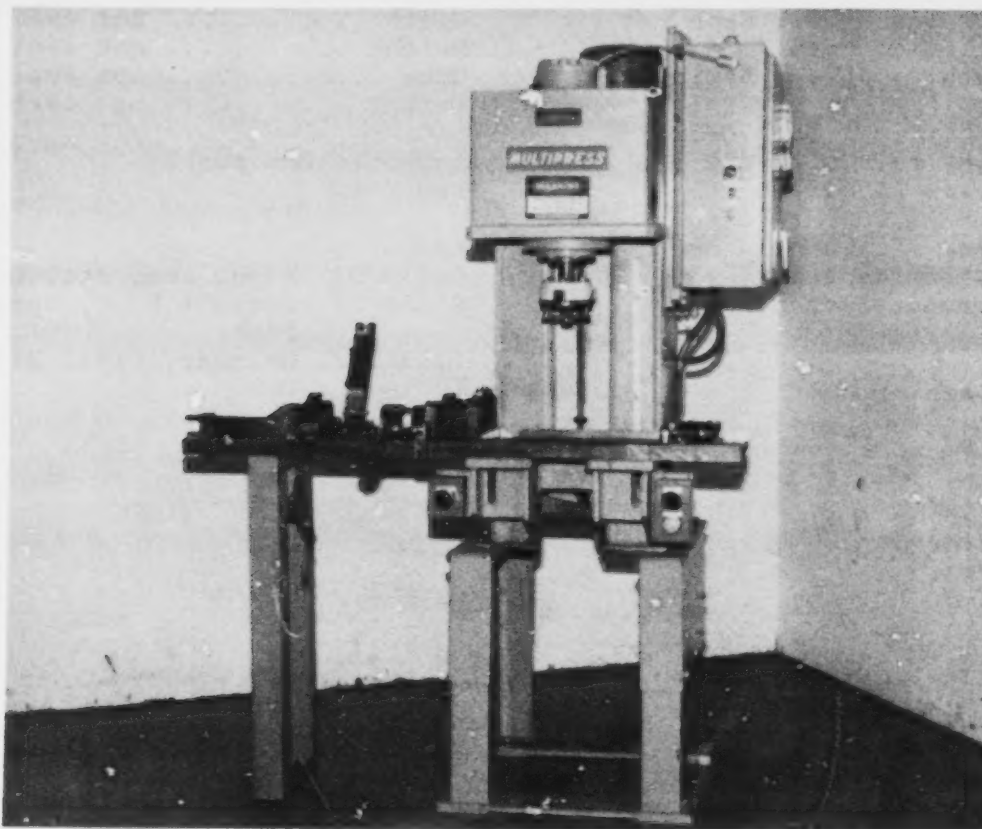


Figure 2-251.1.

Use:

The press is used in pinning and staking operations performed on the 8 inch M404 Projectile.

Description:

The press consists of a bench mounted hydraulic press, projectile clamping carriage and carriage guide. The projectile clamping carriage is equipped with a positioning pin to align the six holes in the projectile with the RAM.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 21740000
Unit Of Issue Each
Installation Data:
Length 57 in.
Width 27 in.
Height 72 in.
Weight 1400 lbs.

Utilities Required:

230 VAC, 60 HZ, 3 Phase
3/8 inch water line

Production Capacity:

15 projectiles per hour

Shipping Data:

Length Not available
Width Not available
Height Not available
Cube Not available
Weight Not available

Associated Equipment:

None

Kits:

None

APE 2175--MACHINE, PROJECTILE SAW

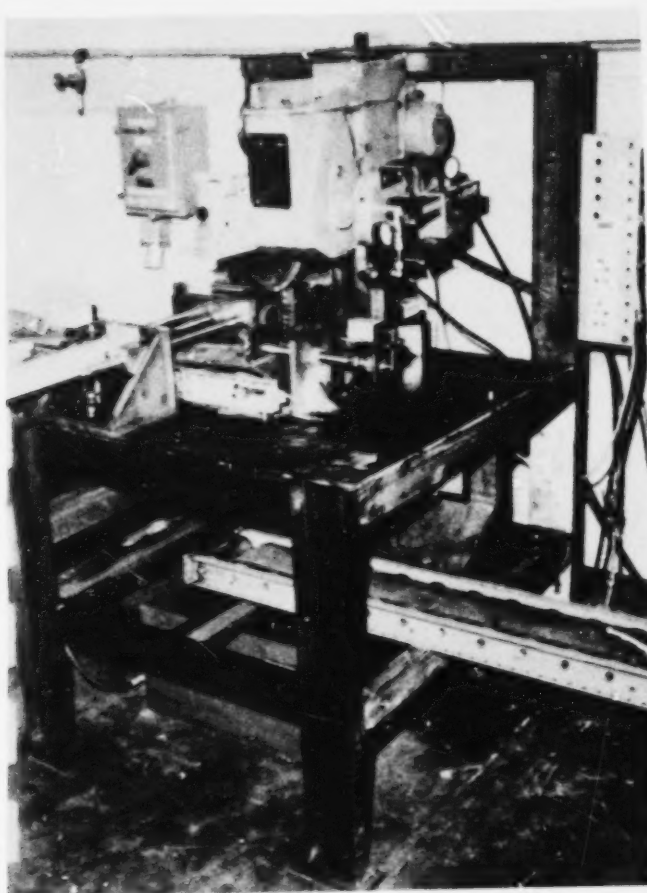


Figure 2-252.

Use:

The projectile saw machine is used to saw high explosive loaded projectiles for demil ranging in size from 75MM to 120MM.

Description:

The saw machine is basically a circular cold saw. This type of saw is designed to saw material at low rotational speeds with a li-

quid coolant. An electronic sequencer (micro processor) is furnished with the machine for automatic and remote operation. Feed and discharge conveyors are also furnished with this machine. Each conveyor is approximately 8 inches wide by 10 feet long.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21750000

Unit of Issue Each

Installation Data (less
conveyors):

Length 78 in.

Width 66 in.

Height 84 in.

Weight 1500 lbs

Utilities Required:

208 VAC, 3 phase, 60 Hz.

Production Capacity:

One projectile per minute
(90MM).

Shipping Data:

MACHINE

Length 90 in.

Width 78 in.

Height 92 in.

Cube 374 cu ft

Weight 2100 lbs

CONVEYORS

Length 125 in.

Width 16 in.

Height 18 in.

Cube 21 cu ft

Weight 250 lbs

Associated Equipment:

None.

Kits:

None.

APE 2176--PRODUCTION TEST EQUIPMENT FOR BELTED SMALL ARMS AMMUNITION

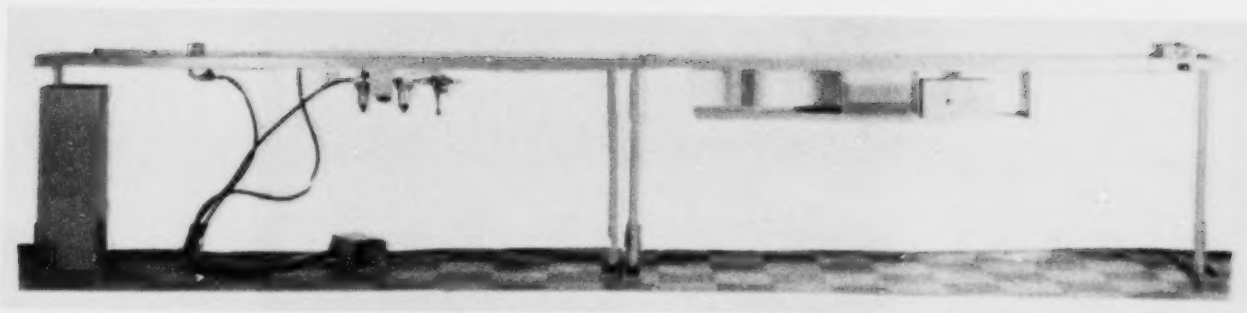


Figure 2-253

Use:

The test equipment is designed to apply a specified tension to belted lengths of small arms ammunition in order to detect weak links.

Description:

The test equipment consists of: a free standing table of adjustable height; test weights of 25, 35 and 55 pounds; an air cylinder providing foot pedal operation of the test weights; and connectors with connector blocks for Cal .30-M1 links; 7.62MM-M13

links; Cal. 50-M2 links, M9 links, and M15A2 links; 20MM-M10 links, M12 links, M14 links, M17 links, DM-1 links, XM24 links, M22 links, and MK6 links.

Difference Between Models:
Original Model

Tabulated Data:

APE No.	21760000
Unit of Issue	Each
Installation Data:	
Length	192 in.
Width	12 in.
Height	35 to 45 in.
Weight	457 lbs.

Utilities Required:
Air at 90 psi

Associated Equipment:
None

Production Capacity:
Not available

Kits:
None

Shipping Data:
Length 105 in.
Width 43 in.
Height 50 in.
Cube 131 cu. ft.
Weight 1112 lbs.

All Data on Pages 2-526 and 2-527, Including Figure 2-254 Deleted.

APE 2178--FIXTURE, CARTRIDGE CASE BASE MARKING, 37MM THRU 6-INCH

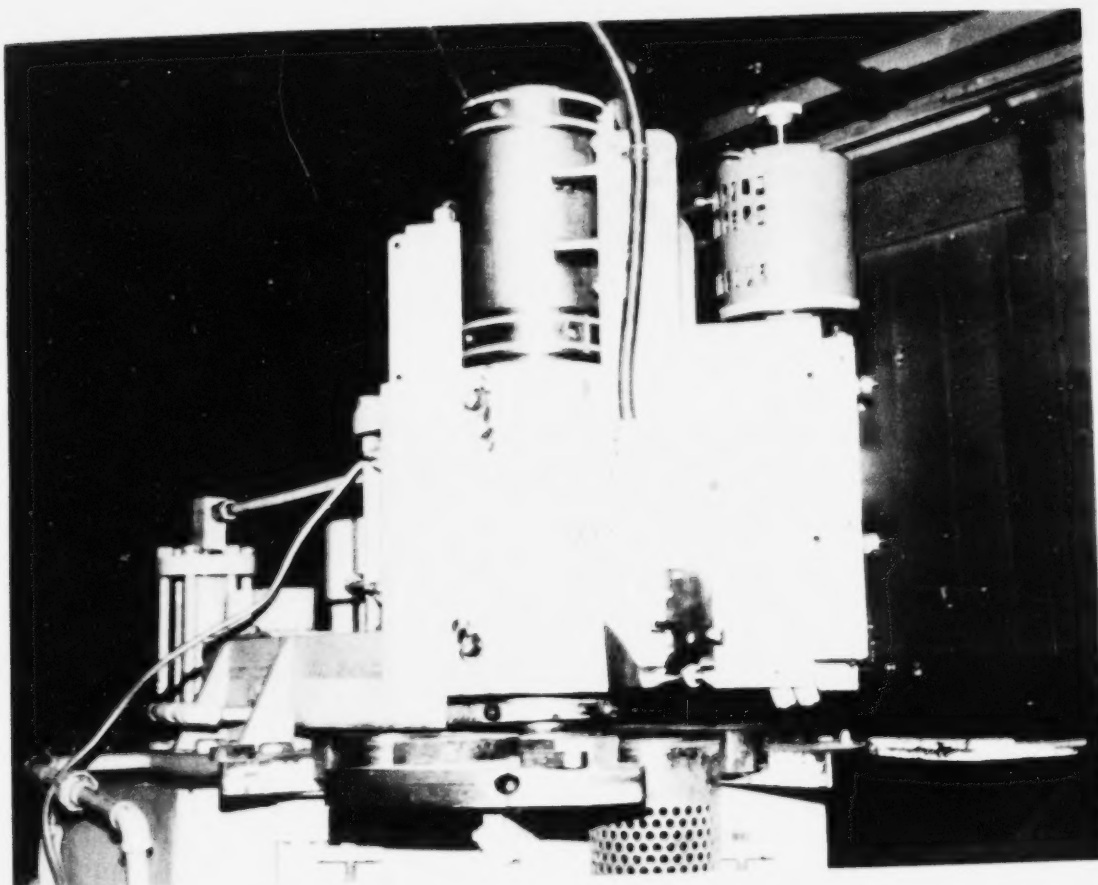


Figure 2-255.

Use:

The fixture is used to automatically stencil the base of 37MM through 6-inch cartridge cases. The fixture is used on the APE 1106 or the APE 1229. The fixture stencils cartridge cases while they are contained at the second station of the prime/deprime machine.

Description:

The fixture consists of a commercial printing head which is modi-

fied to interface with APE 1106 or APE 1229. The fixture is modified to be operated pneumatically. The stencil equipment operates automatically and does not require operator attendance except for checking marking quality.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21780000
Unit of Issue Each

Installation Data:

Length 24 in.
Width 20 in.
Height 26 in.
Weight 220 lbs

Utilities Required:

Air at 80 psi.

Production Capacity:

Not available.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

APE 1106M1, 1229M1.

Kits:

None.

APE 2179--FIXTURE, CLIP HOLDING

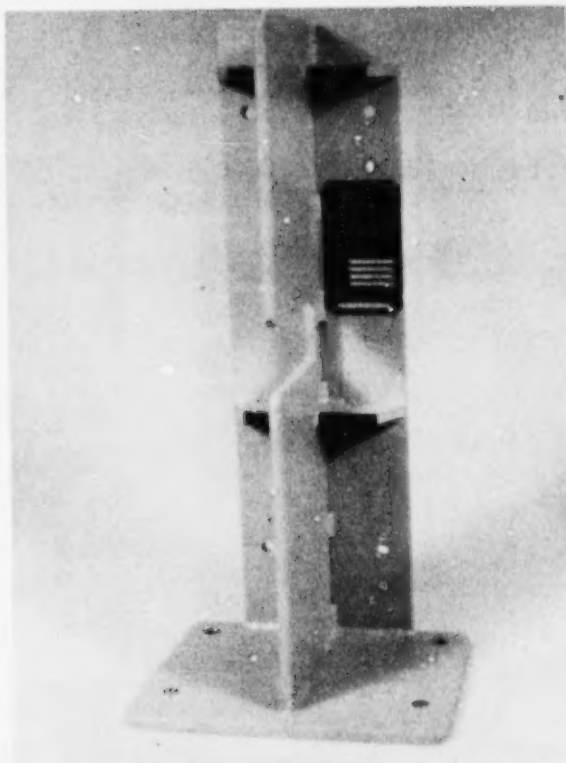


Figure 2-256.

Use:

The clip holding fixture is used to hold the M74, 66MM incendiary rocket four round clips during assembly and disassembly operations. (The clip handling fixture kit is used to prevent the rockets from falling from the clip assembly during operations where the rocket retainers are removed from the clip assembly.)

Description:

The fixture is a welded structure which supports the rocket clip.

Eight retainer petals expanding rings used to expand the retainer petals on the rocket retainers when the retainers are being temperature conditioned are included with the fixture.

Difference Between Models:
Original Design.

Tabulated Data:

APE No. 21790000
Unit of Issue Each

Installation Data:

2179

Length 10 in.
Width 8 in.
Height 21-3/8 in.
Weight 36 lbs

E001

Length 8 in.
Width 8 in.
Height 10-1/2 in.
Weight 5 lbs

Utilities Required:

None.

Production Capacity:

Not available.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

None.

Kits:

2179E001 Clip Handling Fixture

APE 2180--WRENCH, RETAINER REMOVAL

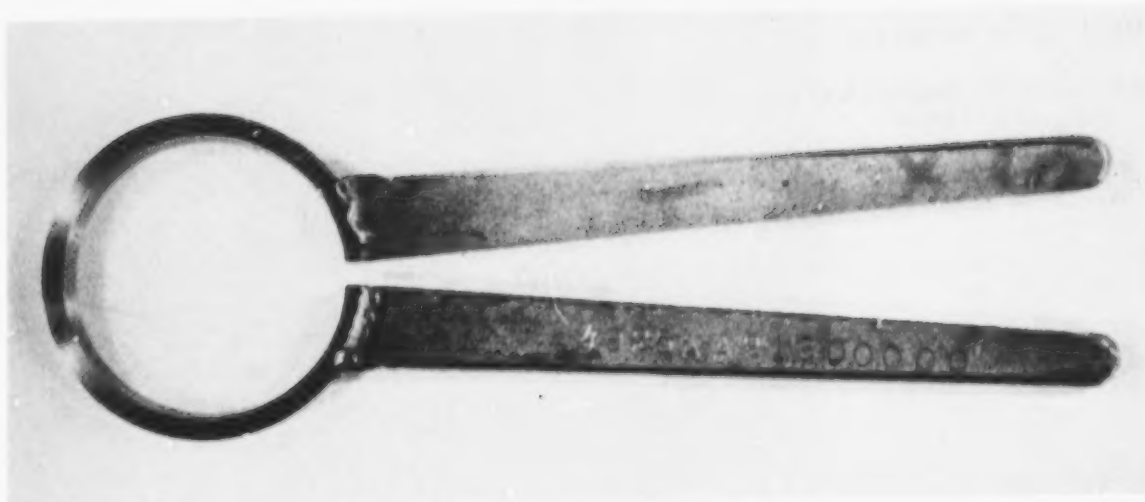


Figure 2-257.

Use:

The retainer removal wrench is used to remove the plastic rocket retainer from the M74, 66MM incendiary rocket four round clip.

Description:

The wrench consists of a circular gripping device with two handles.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 21800000
 Unit of Issue Each
 Installation Data:
 Length 9-1/4 in.
 Width 2-7/8 in.
 Height 1/4 in.
 Weight 1 lb
 Utilities Required:
 None.
 Production Capacity:
 Not applicable.

Shipping Data:

Length 9-3/4 in.
 Width 3-3/8 in.
 Height 3/4 in.
 Cube 01 cu ft
 Weight 1-1/2 lbs

Associated Equipment:

None.

Kits:

None.

APE 2181--WRENCH, TUBE CAP REMOVAL

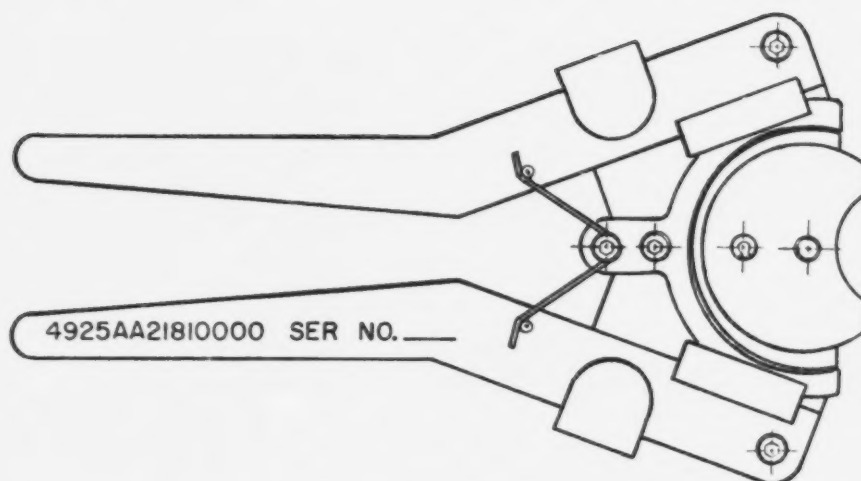


Figure 2-258.

Use:

The tube cap removal wrench is used to remove the tube cap from the M74, 66MM incendiary rocket four round clip without distorting the tube cap.

Description:

The wrench consists of two handles connected to a tube cap jaw and

operated by a torsion spring. When the handles are squeezed together, the tube cap is gripped for removal.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21810000
 Unit of Issue Each
 Installation Data:
 Length 10 in.
 Width 5-1/2 in.
 Height 1 in.
 Weight 2 lbs
 Utilities Required:
 None.
 Production Capacity:
 Not applicable.

Shipping Data:

Length 10-1/2 in.
 Width 6 in.
 Height 1-1/2 in.
 Cube 05 cu ft
 Weight 2-1/2 lbs

Associated Equipment:

APE 2179.

Kits:

None.

APE 2184--FIXTURE, VISUAL INSPECTION

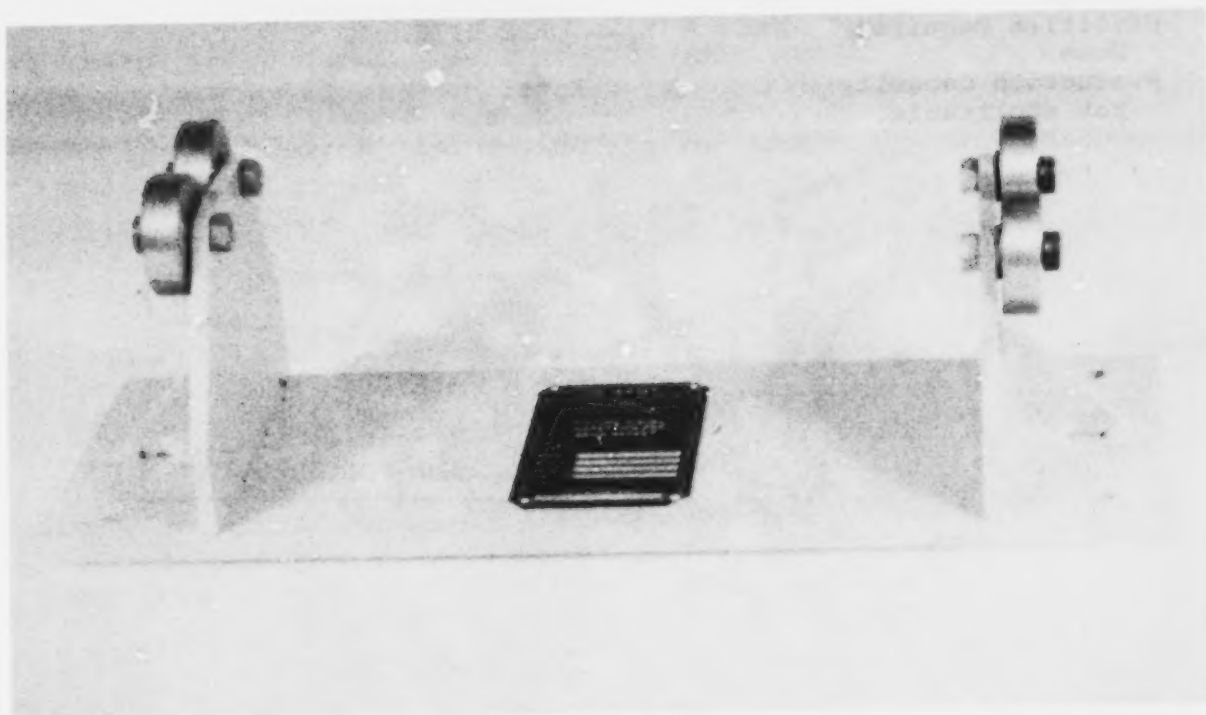


Figure 2-259.

Use:

The visual inspection fixture is used to support the individual M74, 66MM incendiary rockets during the visual inspection phase of the screening operation.

Description:

The fixture consists of a base and two sets of rollers to support the

rockets. Included with the fixture are 40 fin retaining tubes to be used on a rocket when it is removed from four round clip tube.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21840000
 Unit of Issue Each
 Installation Data:

FIXTURE

Length 16 in.
 Width 6 in.
 Height 5 in.
 Weight 5 lbs

TUBES

Length 2-7/8 in.
 Width 2-7/8 in.
 Height 2 in.
 Weight 1/2 lb

Utilities Required:

None.
 Production Capacity:
 Not applicable.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2185--TOOL, RETAINER ASSEMBLY

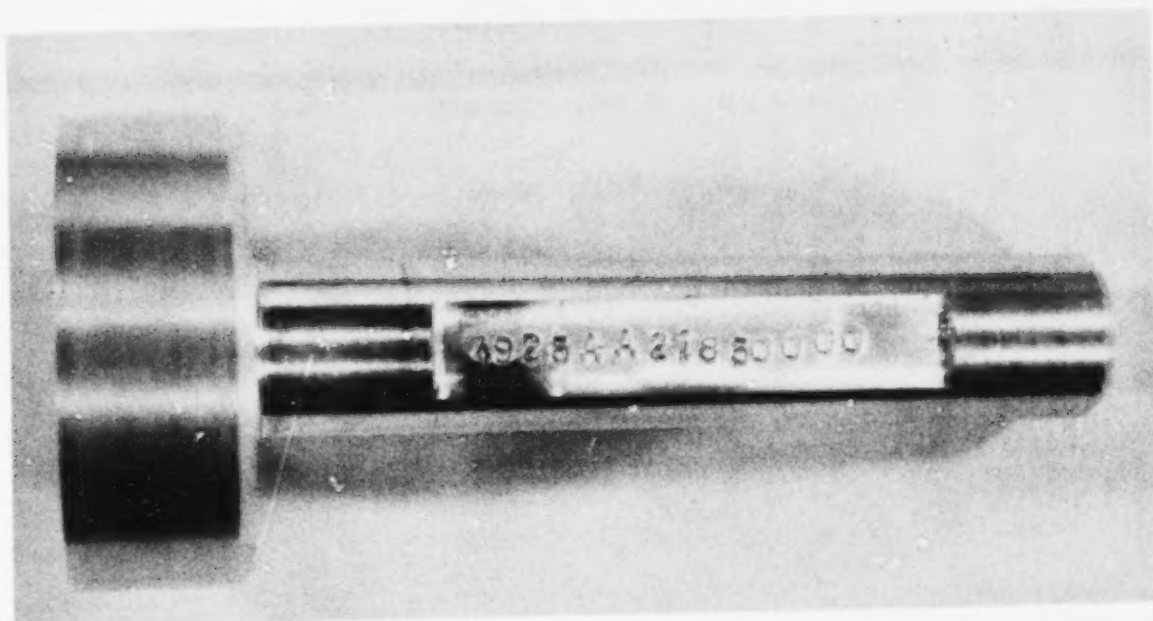


Figure 2-260.

Use:

The retainer assembly tool is used to install the plastic rocket retainer into the tube cap on a M74, 66MM incendiary rocket when the rocket is in the four round clip.

Description:

The tool consists of a metal disk with a handle welded on it.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 21850000

Unit of Issue Each

Installation Data:

Length 2-11/16 in.

Width 2-11/16 in.

Height 6 in.

Weight 1 lb

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 3-1/2 in.

Width 3-1/2 in.

Height 6-1/2 in.

Cube 05 cu ft

Weight 1-1/2 lbs

Associated Equipment:

APE 2179.

Kits:

None.

APE 2186--SHIELD & KNIFE, POLYSTYRENE BOX

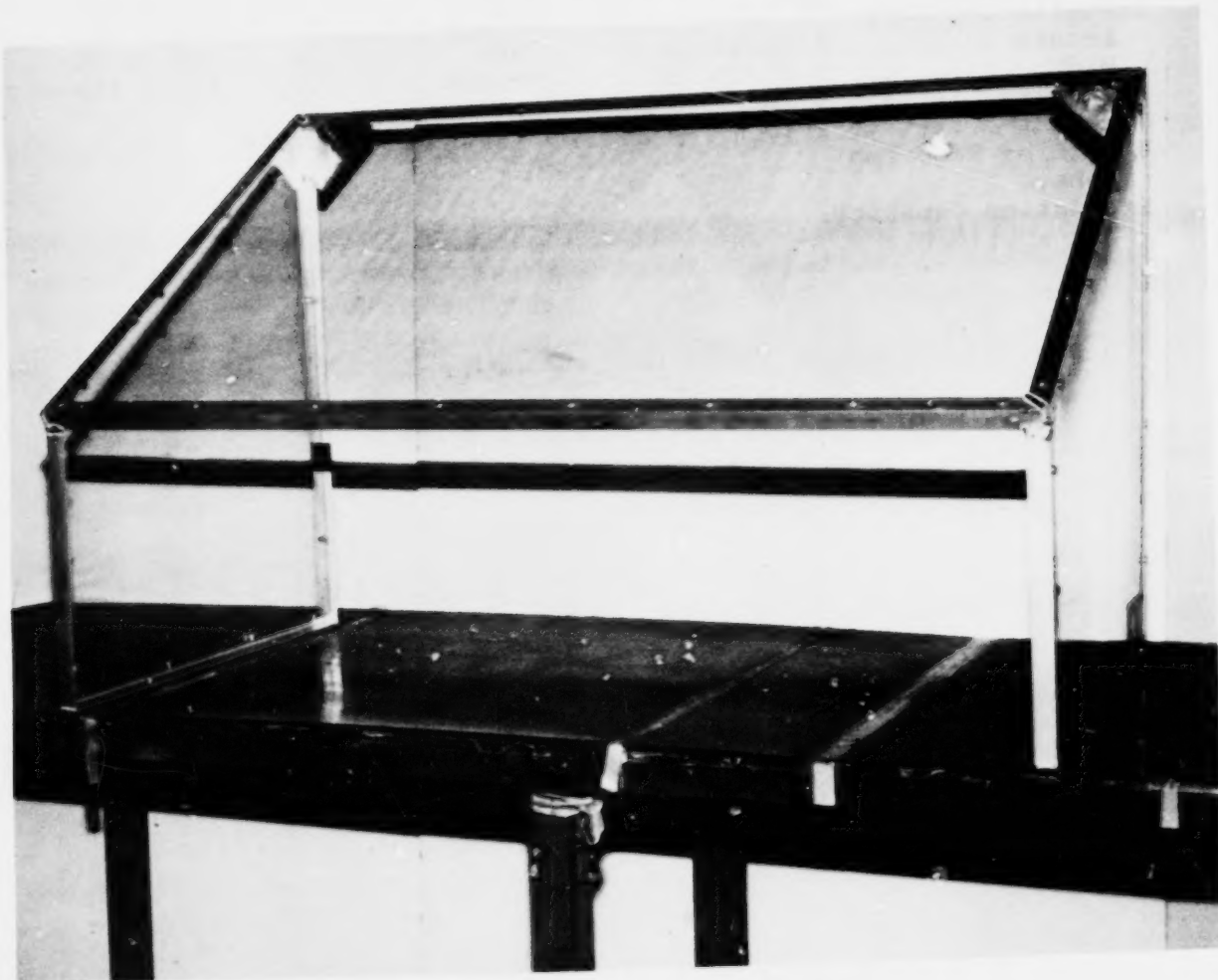


Figure 2-261.

Use:

The knife is used to open polystyrene boxes containing an M74, 66MM four round clip. The shield is used to protect the operator from facial exposure to flame if leaking warhead contents should ignite upon exposure to air during the opening of the polystyrene box.

2-540

Description:

The knife is a commercial utility knife. The shield consists of an aluminum angle frame with transparent nonflammable plastic sides and top.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21860000
 Unit of Issue Each
 Installation Data:
 Length 49 in.
 Width 26-1/2 in.
 Height 30 in.
 Weight 29 lbs
 Utilities Required:
 None.
 Production Capacity:
 185 to 192 clips per shift.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2187--PRESS, RETAINING SCREW REMOVAL

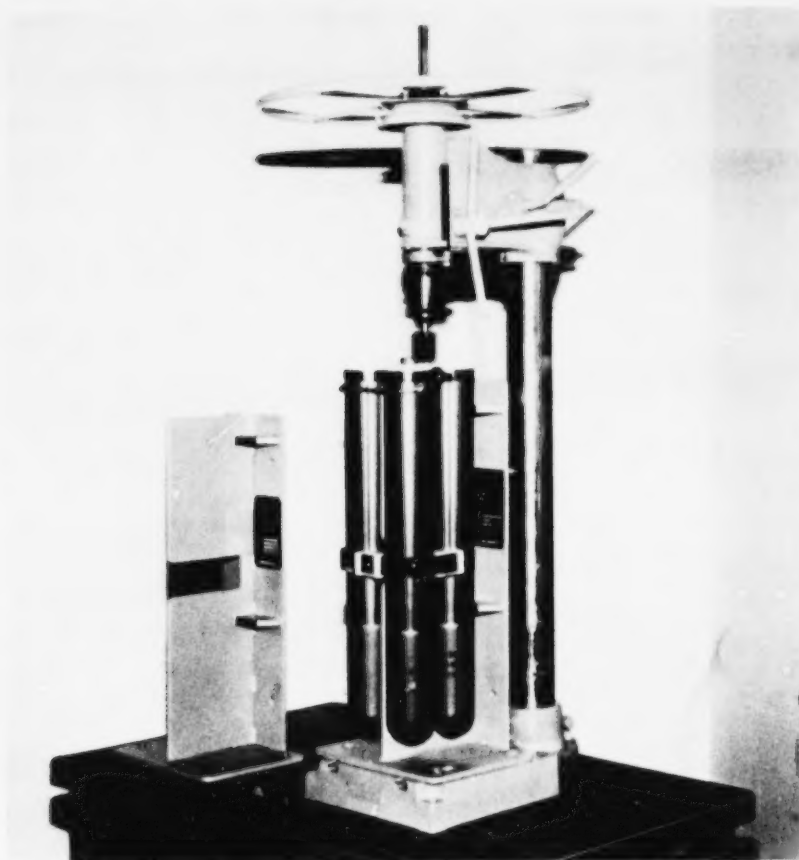


Figure 2-262.

Use:

The retaining screw removal press is used to remove the cross-recess head screw in the manifold cover assembly of an M74, 66MM incendiary rocket four round clip.

modified for manual operation and has had the column lengthened. The press should be fastened to a user furnished table.

Description:

The press is a standard bench model drill press which has been

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21870000
 Unit of Issue Each
 Installation Data:
 Length 18 in.
 Width 21 in.
 Height 45-1/2 in.
 Weight 150 lbs
 Utilities Required:
 None.
 Production Capacity:
 185 to 192 clips per shift.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

APE 2179.

Kits:

2187E001 - Drill Jig for removing cover screw on rocket, incendiary, 66MM, TPA, 4 round clip, M74.

APE 2188--SEALER, PORTABLE, CONTINUOUS HEAT



Figure 2-263.

Use:

The portable continuous heat sealer is used to heat seal barrier bags containing the four round clips of M74, 66MM incendiary rockets.

Description:

The sealer consists of a commercial heat sealer with the neces-

sary mounting hardware to mount the sealer on a standard roller conveyor.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21880000

Unit of Issue Each

Installation Data:

Length 13 in.

Width 12 in.

Height 23 in.

Weight 16 lbs

Utilities Required:

115 VAC, 60 Hz, single
phase, 3 amps.

Production Capacity:

185 to 192 clips per shift.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2189--HOLDER, BOX ASSEMBLY, POLYSTYRENE

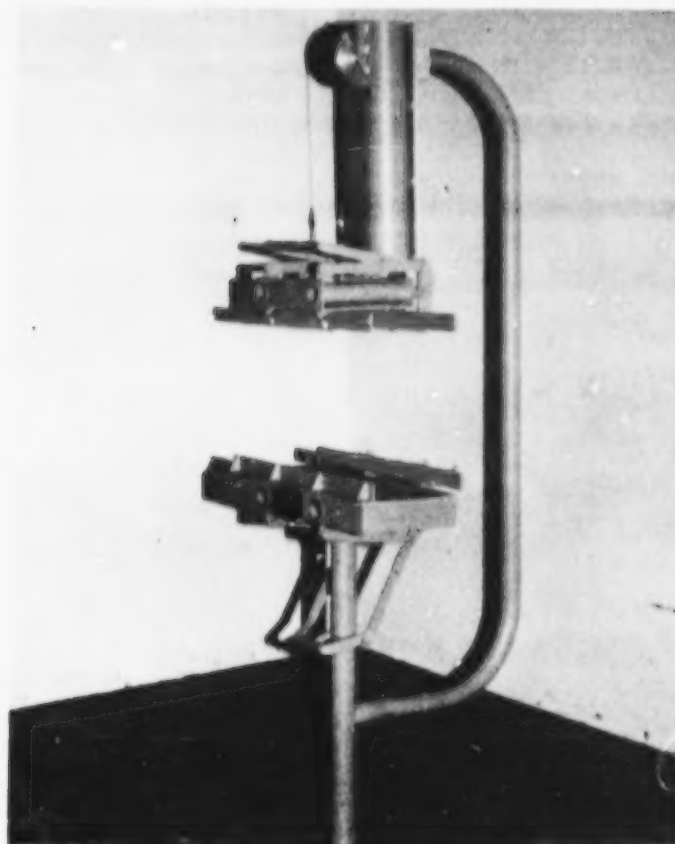


Figure 2-264.

Use:

The polystyrene box assembly holder is used to clamp together the two halves of the polystyrene box holding on M74, 66MM incendiary rocket four round clip. The box is taped while held by the holder.

sembly, and a counterbalance assembly. The holder is set up to allow both clamps to swivel when applying tape to the polystyrene box.

Difference Between Models:
Original design.

Description:

The holder consists of a lower clamp assembly, an upper clamp as-

Tabulated Data:

APE No. 21890000
Unit of Issue Each
Installation Data:
Length 23 in.
Width 32 in.
Height 84-1/2 in.
Weight 125 lbs
Utilities Required:
None.
Production Capacity:
185 to 192 clips per shift.

Shipping Data:

Length not available
Width not available
Height not available
Cube not available
Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2190--TOOLING, FIN SPRING REPLACEMENT

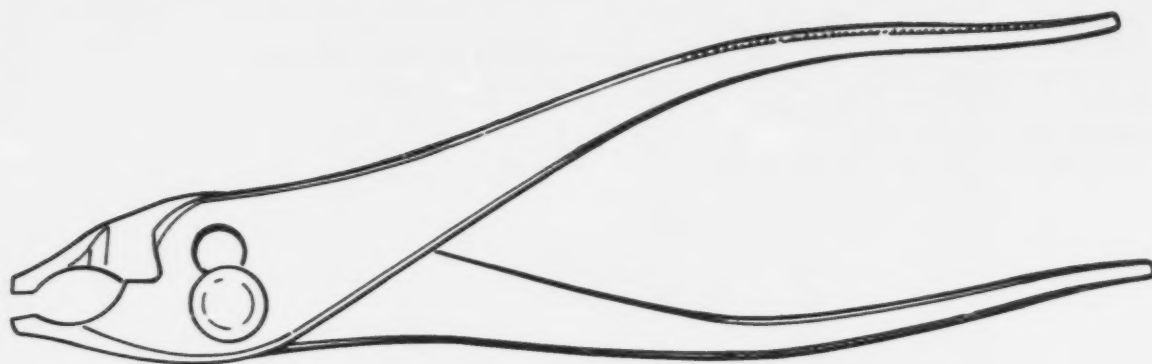


Figure 2-265.

Use:

The tooling is used to remove rivets holding fins from the nozzle of an M74, 66MM incendiary rocket and the tooling is used to set rivets holding fins on the nozzle of the rocket.

a pair of modified pliers used to remove the rivets from the rocket muzzle.

Difference Between Models:
Original design.

Description:

The tooling consists of a rivet squeezer wrench to set rivets and

Tabulated Data:

APE No. 21900000

Unit of Issue Each

Installation Data:

WRENCH

Length 8-1/2 in.

Width 2-1/2 in.

Height 5/8 in.

Weight 1 lb

PLIERS

Length 7-5/8 in.

Width 2 in.

Height 5/8 in.

Weight 1/2 lb

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 9 in.

Width 3 in.

Height 1-3/4 in.

Cube 47 cu in.

Weight 2 lbs

Associated Equipment:

None.

Kits:

None.

APE 2193--DISPENSER, RTV

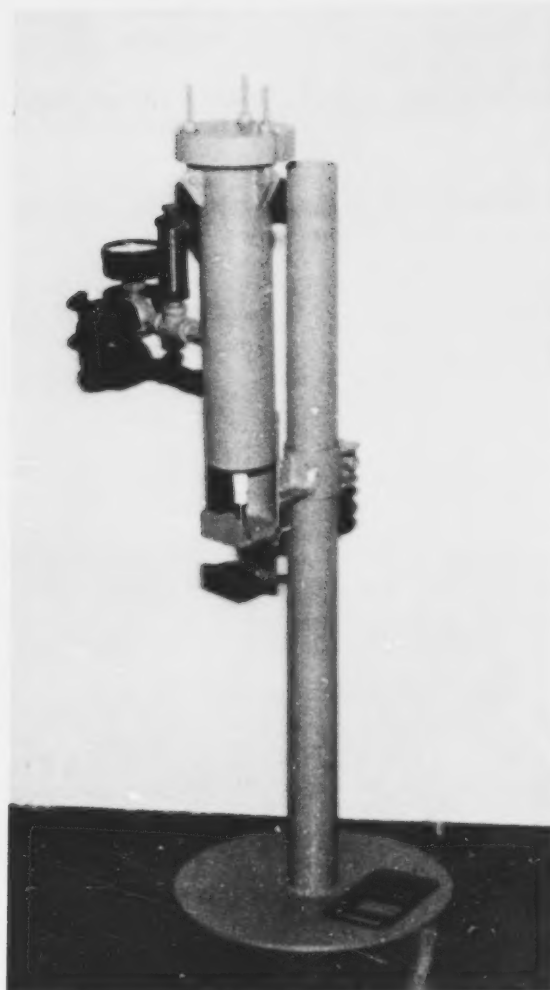


Figure 2-266.

Use:

The RTV dispenser is used for dispensing RTV used in the screening of M74, 66MM rockets.

Description:

The unit consists of a holder for an 11 ounce cartridge of RTV and a pneumatic system for dispensing the RTV.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 21930000
 Unit of Issue Each
 Installation Data:
 Length 13 in.
 Width 10 in.
 Height 35 in.
 Weight 26 lbs
 Utilities Required:
 Air at 80 psi.
 Production Capacity:
 185 to 192 clips per shift.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

None.

APE 2194--SHAKER, BOX, PACKING

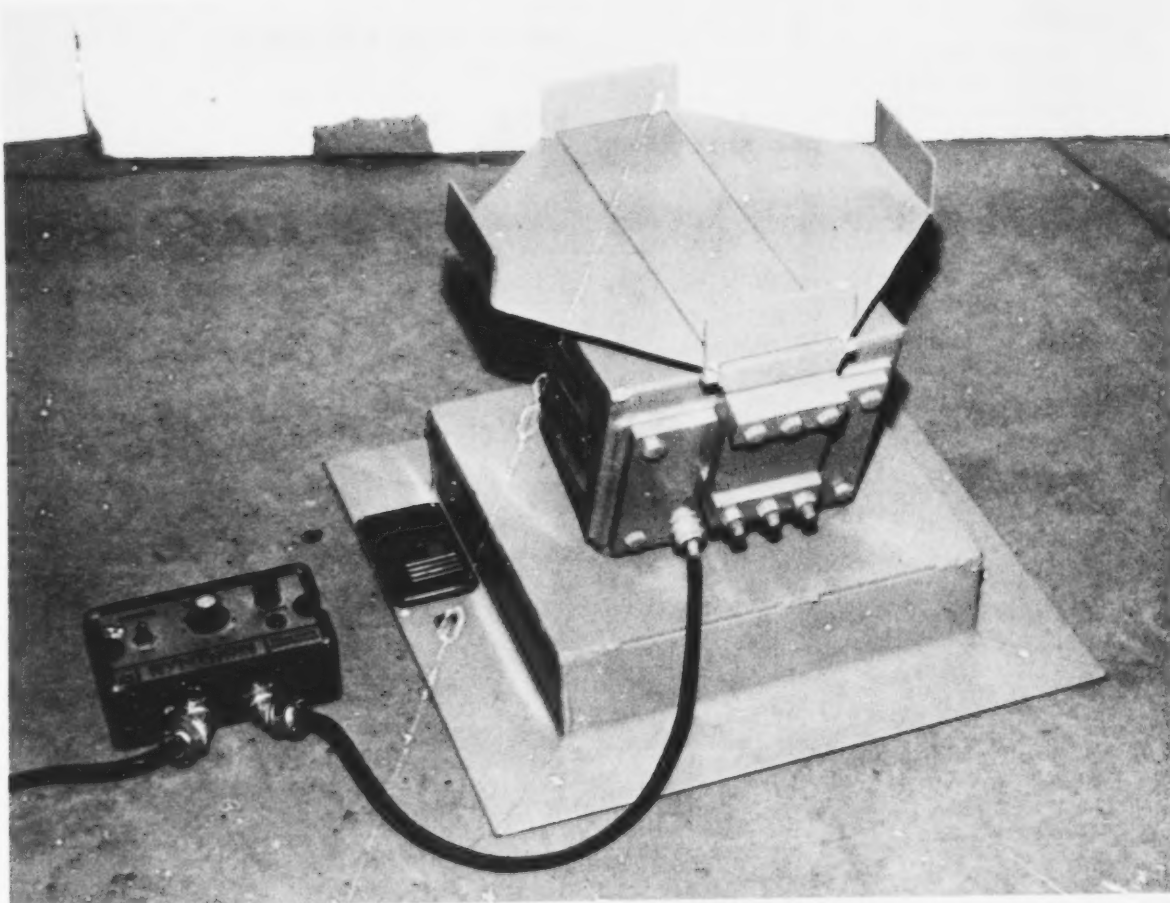


Figure 2-267.

Use:

The packing box shaker is used to settle vermiculate filler that is dispensed from APE 2021M1. The filler assures a firm pack around the M74, 66MM incendiary rocket four round clips in styrene boxes that are packed in cardboard containers.

Description:

The shaker consists of a vibrator unit, a base, a tray to hold the box. The vibrator unit is supplied with a controller.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21940000

Unit of Issue Each

Installation Data:

SHAKER

Length 18 in.

Width 18 in.

Height 13 in.

Weight 75 lbs

CONTROL

Length 6-1/4 in.

Width 3-3/4 in.

Height 2-1/32 in.

Weight not available

Utilities Required:

115 VAC, 60 Hz, 4 amps.

Production Capacity:

Not applicable.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

APE 2021M1, 2021E001.

Kits:

None.

APE 2196--MACHINE, SMALL ITEMS SHEAR

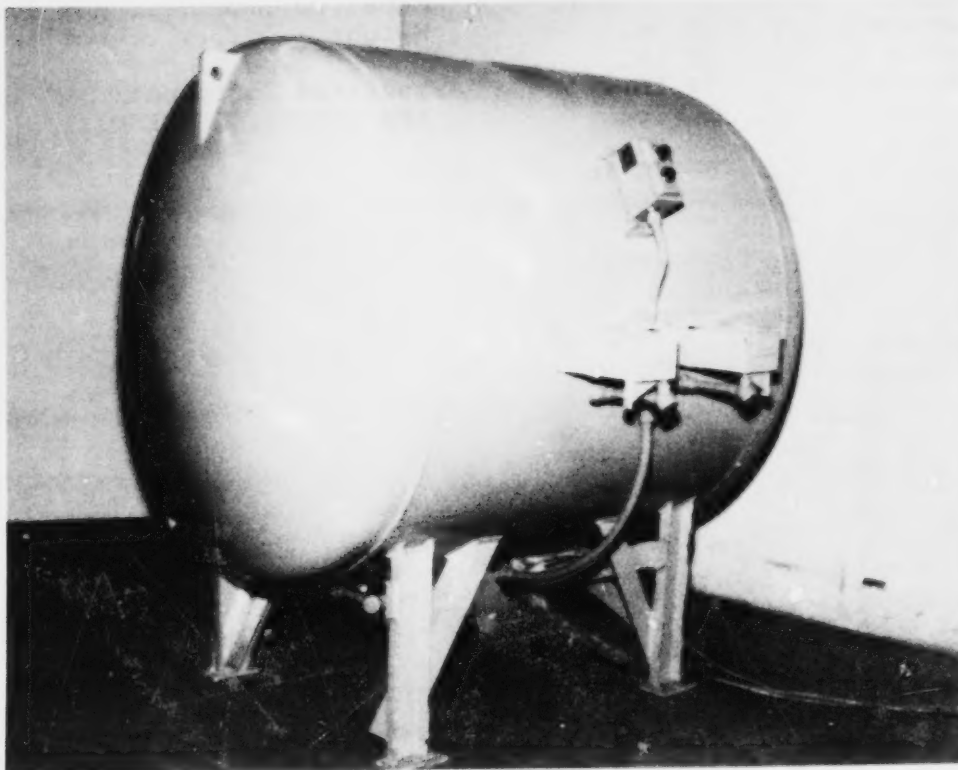


Figure 2-268.

Use:

The small items shear machine is used to punch holes in explosive items to facilitate better control of demil in the APE 1236 deactivation furnace. The machine will process defuzed M26 grenades, standard contour artillery fuzes with boosters, M21A4 boosters, M42 grenades, 40MM M384 & M406 grenades.

Description:

The machine consists of two separate shear stations housed in an

operational shield. Once loaded, the operation of transferring to the shear station, punching, and ejecting are all controlled by a micro-processor. Hydraulic power is supplied by a separate power unit, included with the machine.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21960000

Unit of Issue Each

Installation Data:

MACHINE

Length 73 in.

Width 63 in.

Height 69 in.

Weight 5000 lbs

POWER UNIT

Length 46 in.

Width 39 in.

Height 33 in

Weight 750 lbs

Utilities Required:

Electricity - 110 volts, 60
Hz, single phase, and 208
volts, 60 Hz, 3 phase.

Production Capacity:

Six items per minute.

Shipping Data:

MACHINE

Length 84 in.

Width 72 in.

Height 78 in.

Cube 273 cu ft

Weight 5500 lbs

POWER UNIT

Length 54 in.

Width 48 in.

Height 36 in.

Cube 54 cu ft

Weight 1000 lbs

Associated Equipment:

APE 1236.

Kits:

2196E001 - KIT, M21A4 Booster

2196E002 - KIT, 40MM, M406

2196E003 - KIT, 40MM, M386

2196E004 - KIT, M500A1 (Series)
Fuze w/M21A4 Booster2196E005 - KIT, M26 Hand Grenade
unfuzed2196E006 - KIT, M42 & M46
Grenade - ICM

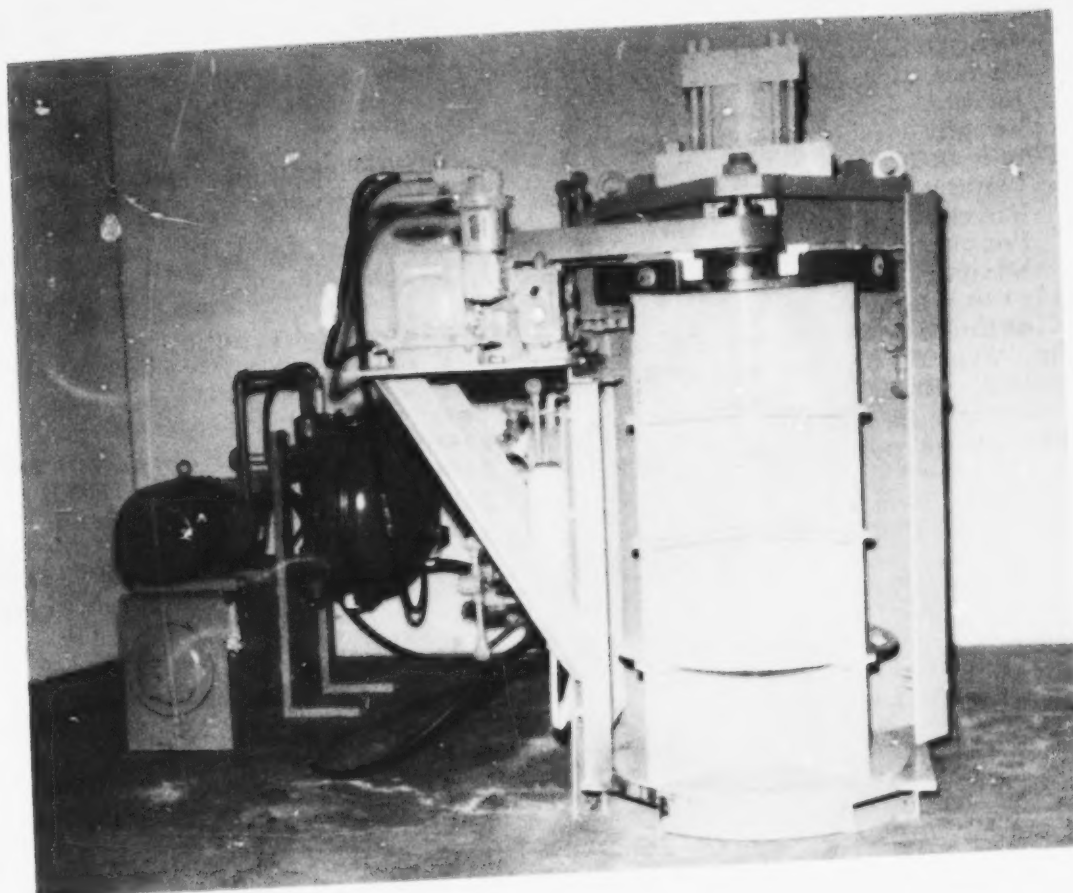


Figure 2-269.

Use:

The deprime machine is used to remove screw-type primers from Navy 3"/50 through 8-inch and Army 105MM and 120MM cartridge cases prior to cartridge case salvage and remove press primers from cases to be reused.

Description:

The machine design incorporates a 3/4 inch thick steel operational

shield with a four station index turntable. A hydraulic power unit supplies hydraulics to operate a 100 ton punch cylinder, hydraulic motor and other machine cylinders. 110 VAC electrical operates and controls the functioning of various micro-switches positioned on the machine.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 21970000

Unit of Issue Each

Installation Data:

Length 60 in.

Width 62 in.

Height 84 in.

Weight 6640 lbs

Utilities Required:

208 VAC 3-Phase 15 HP hydraulic pump motor, and 110

VAC to operate machine controls. Alternate supply

source 17 KVA.

Production Capacity:

3 cartridge cases per minute.

Shipping Data:

Length 66 in.

Width 84 in.

Height 92 in.

Cube 181 cu ft

Weight 7730 lbs

Associated Equipment:

None.

Kits:

2197E001 KIT, Deprime 8"/55 Cartridge Cases MK1, MOD-0, MOD-1 and MOD-2.

2197E002 KIT, Deprime 120mm, M109 and XM111 Cartridge Cases.

2197E003 KIT, Deprime 5"/38 MK5 MOD 0 and MOD 1, MK8 MOD 0, MK10 MOD 0 and MOD 1, MK11 MOD 1, and 5"/54 MK6 MOD 0, MK7 MOD 0, MK9 MOD 0 and MOD 1 Cartridge Cases.

2197E004 KIT, Deprime 6"/47 MK4 MOD 0, MK6 MOD 0 and MOD 1, MK7 MOD 0 Cartridge Cases.

2197E005 KIT, Deprime 3"/50 MK3 MOD 0, MOD 2, and MOD 3, MK7 MOD 0, MOD 1, and MOD 2, MK9 MOD 0 Cartridge Cases.

2197E006 KIT, Deprime 105MM M115, M148, and M150 Cartridge Cases with M80, M83, M86 Primers.

APE 2198--DELINKER, 7.62MM

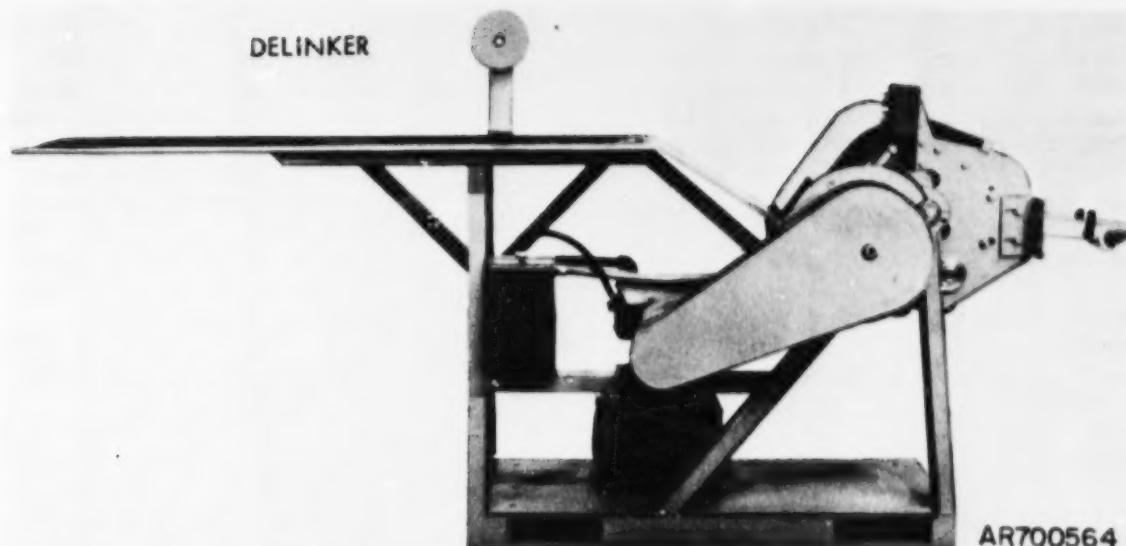


Figure 2-269.1.

Use:

The machine is used to delink 7.62MM cartridges belts for ratio changing or one hundred percent delink. The machine may be combined with the APE 1217M1, 7.62MM linker, to delink and replace cartridges into five sequence ratio packs or straight pack ammunition belts, in one continuous operation.

Description:

The delinker consists of a metal frame, a power operated rotating drum, cam driven ejector pins, a cartridge belt feed guide and optional use cartridge sorting wheels.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 21980000
Unit of Issue Each

Installation Data:

Length 83 in.
Width 26 in.
Height 40 in.
Weight 503 lbs.
Occupied Floor Space:
15 square feet
Overall Cube ... 50 cu. ft.

Utilities Required:

115/230 volts, 9.2/4.6 Amps,
60 cycle single phase

Production Capacity:
400 rounds per minute

Shipping Data:

Length 98 in.
Width 34 in.
Height 47 in.
Cube 133 cu. ft.
Weight 1200 lbs.

Associated Equipment:

APE 1217M1, Linker, 7.62.
(for combined delink and
linking operations only)

Kits:

2198E001, Delink 7.62 100
percent delink without
cartridge sorting

APE 2200--ROBOT

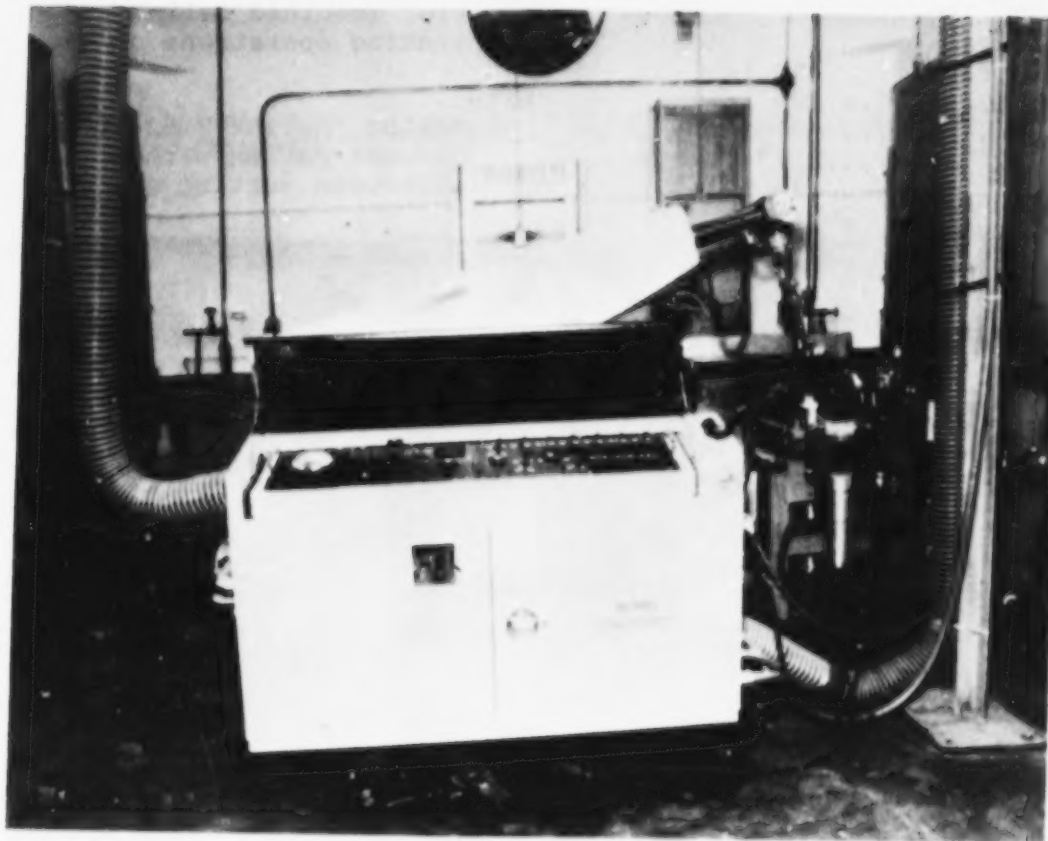


Figure 2-270.

Use:

The Robot was developed to be interfaced with pieces of Ammunition Peculiar Equipment. The Robot is presently interfaced with the APE 1002M2 Defuzing machine w/EO14 Kit. The Robot is used to replace man in explosive hazard situations.

Description:

The Robot consists of a hydraulic system with electrically control servos, core memory system with encoders, electrical power circuit with electrical sensors and an electro magnet as a pick up device.

Difference between models:
Original design.

Tabulated Data:

APE No.	2200
Unit of Issue	Each
Installation Data:	
Length	80 in.
Width	160 in.
Height	60 in.
Weight	3500 lbs

Utilities Required:

230 or 460 volt, 3 phase, 60 Hertz, 11.5 KVA; 220 or 440 volt, 3 phase, 50 Hertz, 12 KVA.

Production Capacity:
2400 projectiles per 8 hour
shift (40MM). Capable of
rounds from 20MM to 90MM.

Associated Equipment:
Various APE.

Kits:
None.

Shipping Data:
Length 70 in.
Width 54 in.
Height 60 in.
Weight 3900 lbs

APE 2203--MACHINE, PRIME-DEPRIME, SCREW TYPE PRIMER

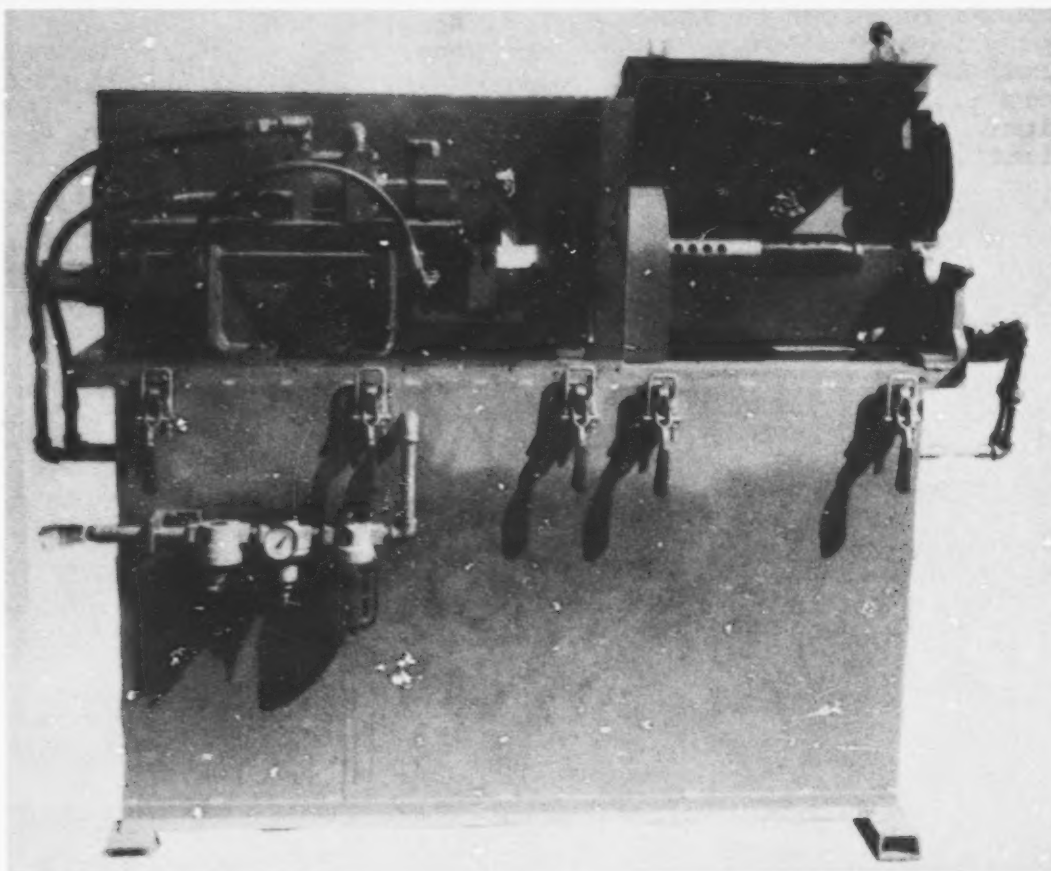


Figure 2-271.

Use:

The prime-deprime machine mechanically removes and assembles screw type primers from cartridge cases. The machine grips the primer stem which eliminates the hazard of the primer head being struck during removal and/or installation.

locking device, a primer housing and collet holder assembly, a reversing air motor, two air cylinders, and the control valves.

Difference Between Models:
Original design.

Description:

The machine consists of a table, a flash shield, a cartridge case

Tabulated Data:

APE No. 22030000
 Unit of Issue Each
 Installation Data:
 Length 70 in.
 Width 20 in.
 Height 50 in.
 Weight 1600 lbs
 Utilities Required:
 Air at 80 psi and 100 cfm.
 Production Capacity:
 225 per hour.

Shipping Data:

Length 78 in.
 Width 24 in.
 Height 60 in.
 Cube 25 cu ft
 Weight 1990 lbs

Associated Equipment:

None.

Kits:

2203E001 KIT, Remove M86 primer
 from 105MM ctg cases:
 M115, M148, and M150
 2203E002 KIT, Removal of L4
 primers from 105MM L36
 cartridge cases
 2203E003 KIT, Deprime-prime
 Navy 3"/50 ctg cases
 2203E004 KIT, Deprime-prime
 Navy 5"/38 & 5"/54
 ctg cases
 2203E005 KIT, Deprime-prime
 Navy 6"/47 ctg cases

APE 2205--MACHINE, 155MM: M483A1 SINGLE STATION SCREENING

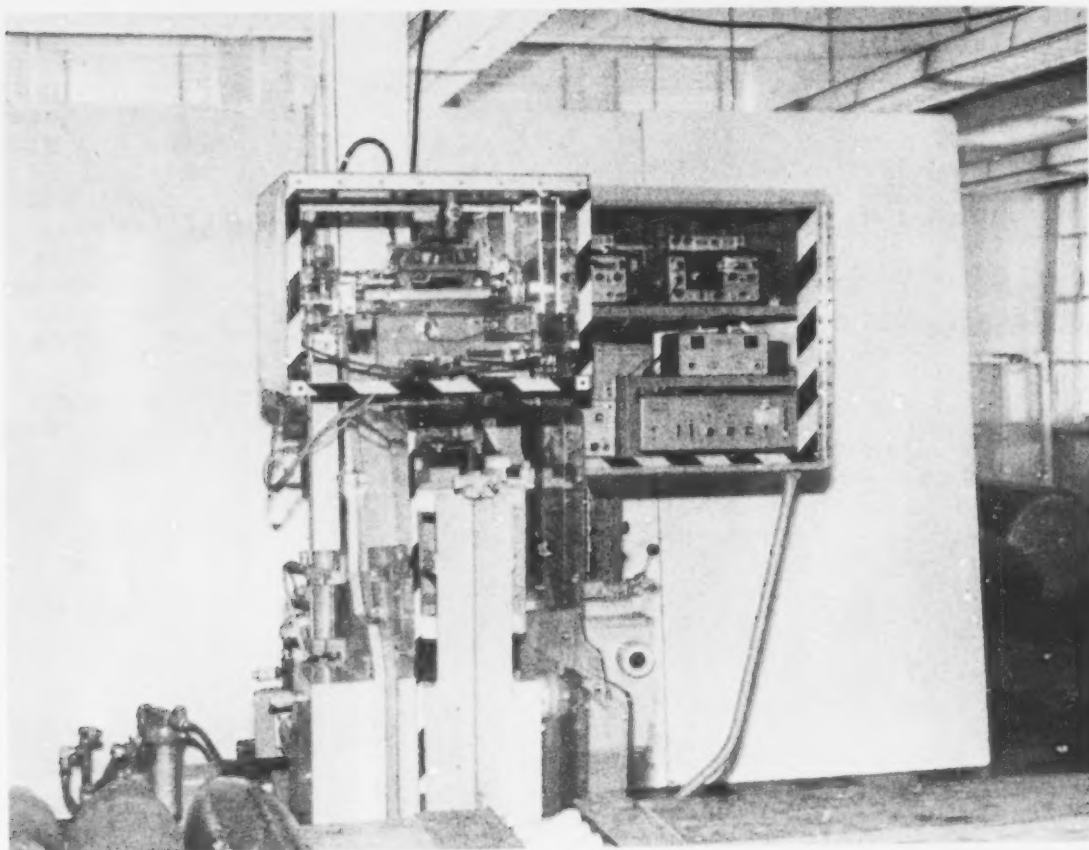


Figure 2-271.1.

Use:

The single station screening machine is used to screen 155MM: M483A1 projectiles for cracks in the projectile base.

Description:

The machine consists of a mechanical handling system that automatically positions a projectile after it has been manually inserted; recirculating supply of couplant for ultrasonic scanning; two ultrasonic testers with flaw

alarms; one eddy current tester with flaw alarm; and, automatic rotation and scan cycling for the transducers and eddy current probe.

Difference Between Models:

Original Model

Tabulated Data:

APE No.	22050000
Unit of Issue	Each
Installation Data:	
Length	56 in.
Width	96 in.

Height 64 in.
Weight Not available

Utilities Required:

Electrical: 120 VAC, 50 or 60
Hz, 20 Amp, single
phase

Air: 100 psi line pressure min.

Production Capacity:

Shipping Data:

Length Not available
Width Not available
Height Not available
Cube Not available
Weight Not available

Associated Equipment:

None

Kits:

None

APE 2212--M36 BURSTER REMOVAL TOOL

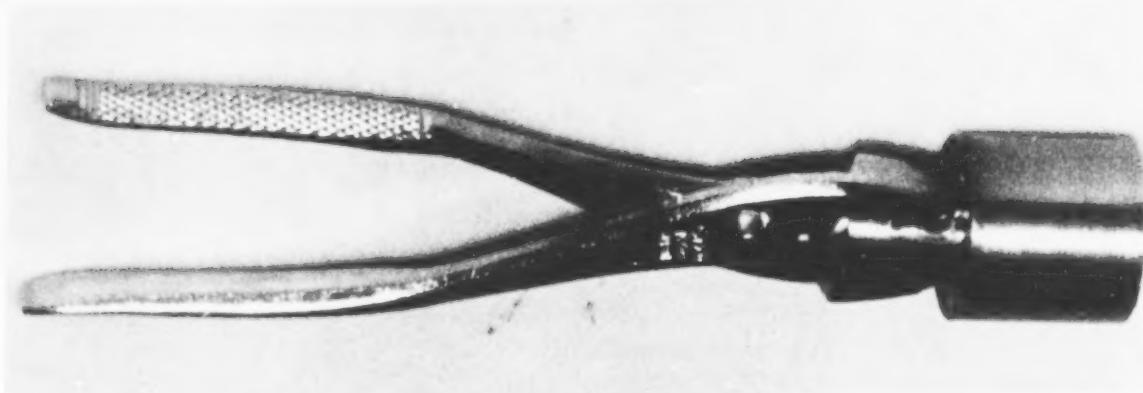


Figure 2-271.2.

Use:

The tool is designed to remove the M36 burster from a 115MM M55 Chemical Rocket Warhead after the fuze has been removed and before the adapter is removed.

Description:

The tool consists of an eight inch slip joint pliers with a tube welded between the open jaws that is used to remove the burster.

Difference Between Models:
Original Model

Tabulated Data:

APE No. 22120000
Unit of Issue Each

Installation Data:

Length Not available
Width Not available
Height Not available
Weight Not available

Utilities Required:
None

Production Capacity:
Not available

Shipping Data:

Length Not available
Width Not available
Height Not available
Cube 1.0 cu ft
Weight 1.0 lb

Associated Equipment:

None

Kits:

None

APE 2213 -- M34 BURSTER REMOVAL TOOL

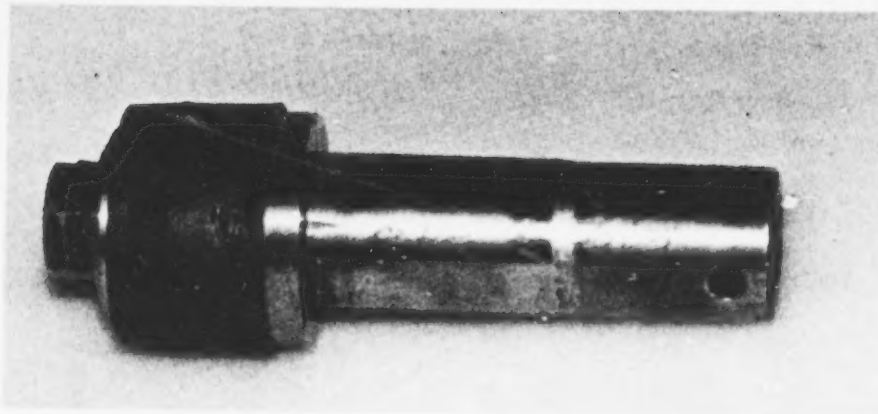


Figure 2-271.3.

Use:

The tool is designed to remove the M34 burster from a 115MM M55 Chemical Rocket Warhead after the fuze, M36 burster and adapter have been removed.

The tool consists of an expandable rubber burster gripper attached to a shaft with a 1/2 inch hex socket drive.

Description:

2-562.4

Difference Between Models:
Original Model

Tabulated Data:

APE No. 22130000
 Unit of Issue Each
 Installation Data:
 Length Not available
 Width Not available
 Height Not available
 Weight Not available

Utilities Required:

Production Capacity:

Shipping Data:

Length Not available
 Width Not available
 Height Not available
 Cube 1 cu ft
 Weight 1 lb

Associated Equipment:

None

Kits:

None

APE 2215--LINK-DELINK MACHINE, 25MM

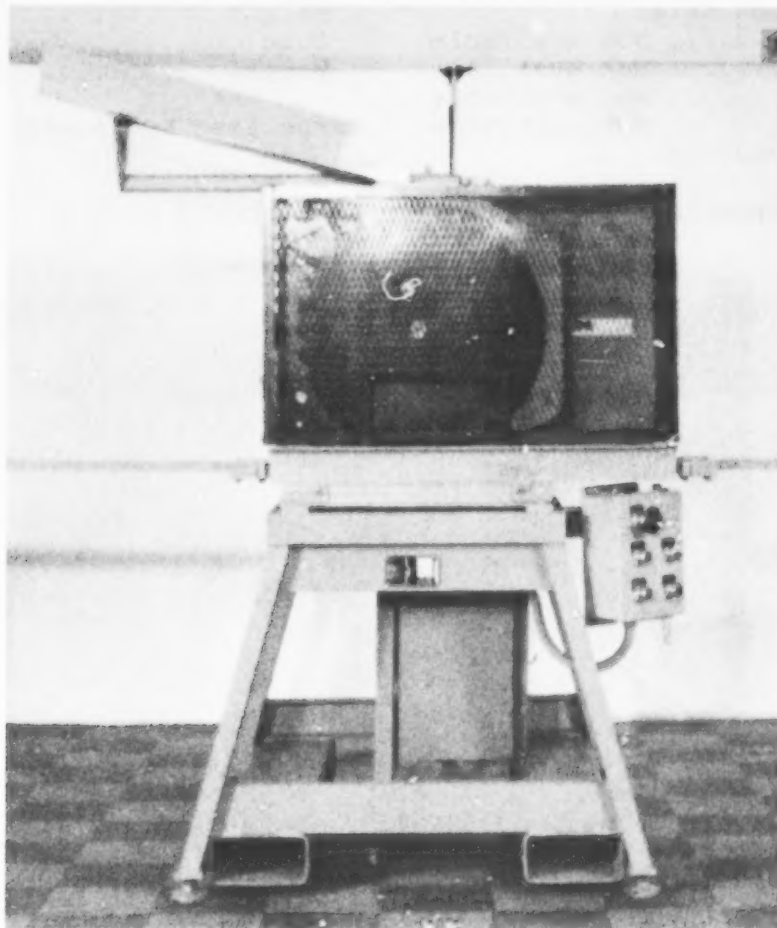


Figure 2-271.4

Use:

The 25MM Link-Delink Machine, is designed to link or delink 25MM cartridges and M28 Links.

Description:

The 25MM Link-Delink Machine, is a hand fed, air/electrical powered machine consisting of a frame assembly or structural support, a Link-Delink wheel and a circuit control box. The ma-

chine is equipped to link cartridges into belts ranging in length from one cartridge to ten thousand cartridges. The machine will continuously delink cartridge belts and deposit the links and cartridges into separate retrieval areas.

Difference Between Models:

Original Design

Tabulated Data:

APE No. 22150000
Unit of Issue Each

Installation Data:

Length 13 ft.
Width 64 in.
Height 6 ft.
Weight Not available

Production Capacity:

30 to 300 rounds per minute

Shipping Data:

Length Not available
Width Not available
Height Not available
Cube Not available
Weight Not available

Associated Equipment:

None

Kits:

None

APE 2219--TOOL SET, DEMILITARIZATION OF M180
DEMOLITION KIT

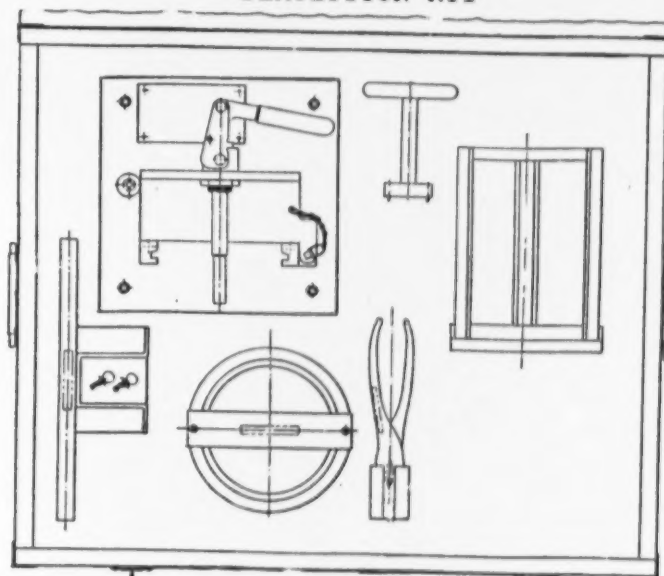


Figure 2-271.5.

Use:

The tool set is designed for specific rocket motor disassembly operations necessary in the demilitarization of M180 Demolition Kit.

Description:

The tool set consists of the following hand tools:

- a. Detonator holding fixture which holds the detonator in a fixed position for removal of the blasting cap. The fixture has a plunger type mechanism to push the blasting cap out for removal by the operator.
- b. The rocket motor head lifting handle to provide a grasping point for the operator to lift the head out of the motor case.
- c. Retaining ring container which fits over the rim of the rocket motor case and prevents

internal retaining rings from springing out when being removed.

d. The propellant disassembly fixture acts as a receptacle for holding the combined propellant and motor head in place for motor head removal.

e. The booster removal tool to grasp and remove the booster from the protector body of the detonator assembly.

f. The rocket protector retainer removal tool is used to unscrew the protector retainer from the detonator.

g. The tools are contained in a case for shipping and storage.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 22190000

Unit of Issue Each

	Height (inches)	Width (inches)	Depth (inches)	Weight
Detonator holding fixture	5-3/8	10	10	5 pounds
Rocket motor head lifting handle	3-3/4	12	1/2	2 pounds
Retaining ring container	2-1/2	7	7	5 pounds
Propellant disassembly fixture	8-5/8	6-1/4	6-1/4	5 pounds
Booster removal tool	12	1-5/8	1-5/8	2 pounds
Rocket protector retainer ring removal tool	5-1/8	4	4	3 pounds
Demilitarization tool set storage case	8	27	23	10 pounds (empty)

Utilities Required:

None

Production Capacity:

Not available.

Shipping Data (in storage case):

Length 27 in.
 Width 23 in.
 Height 8 in.
 Cube 3 cu ft.
 Weight 32 lb

Associated Equipment:

APE 7041M1, O-6 Ton Bench Type
 Hydraulic Staking Machine, in
 conjunction with APE7041E001,
 Kit Igniter Remover, Demilitari-
 zation of M180 Demolition Kit.

APE 7023M1, Vise, Projectile,
 Navy, in conjunction with
 APE7023E001, Kit, Jaw,
 M180 Demolition Kit.

APE 2221--TEST FIXTURE, OGIVE CONCENTRICITY

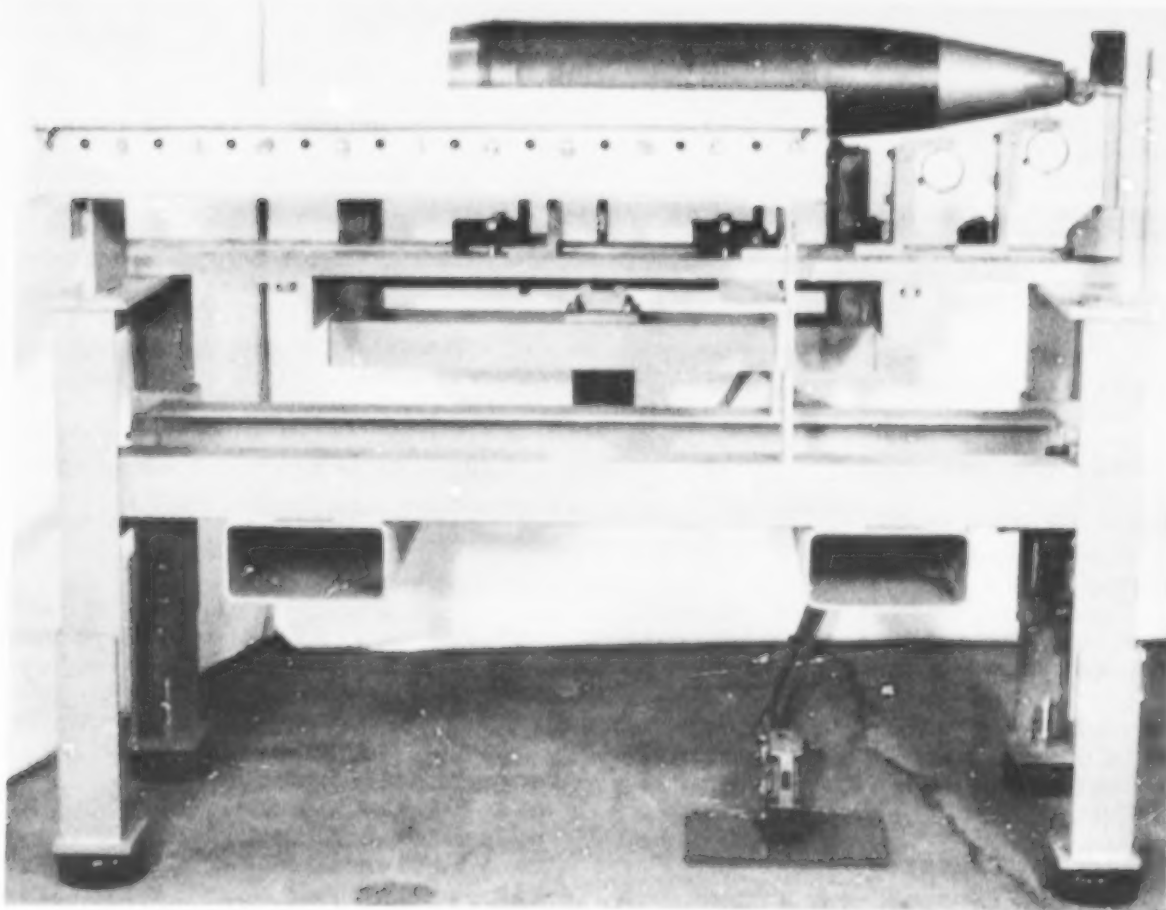


Figure 2-271.6

Use:

The fixture is used to insure that the projectile body and the replaced ogive on the 155MM M483A1 projectile are concentric.

Description:

The fixture consists of the following assemblies: A metal support frame; a projectile roller assembly for manual movement of projectiles; a pneumatically operated projectile lift assembly

which lowers the projectile from the roller assembly into position for testing; A vertical ogive alignment assembly used to center the projectile; a large diameter concentricity gage and a small diameter concentricity gage for performing the concentricity test.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 22210000

Unit of Issue Each

Installation Data:

Length 52 in.

Width 21-1/2 in.

Height 30 inches

Weight 620 pounds

Utilities Required:

Air at 90 psi.

Production Capacity:

Not applicable.

Shipping Data:

Length 63 in.

Width 45 in.

Height 53 in.

Cube 87 cu ft.

Weight 1278 lb

Associated Equipment:

None

Kits:

None

APE 2222--AIR TEST DEVICE, PROJECTILE

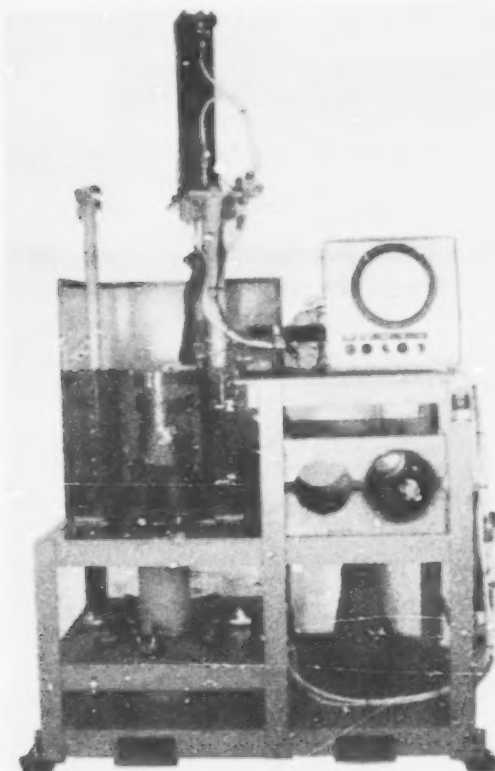


Figure 2-271.7.

Use:

The device is used to insure that an airtight seal has been achieved between the ogive and projectile and the base plate and the projectile during renovation operations. The device is designed to test the 155MM M483A1 projectile and with the use of APE 2222E001 may be used to test 8 inch projectiles.

Description:

The device consists of the following major parts and assemblies: A frame assembly for structural support; A pressure chamber cover assembly and pressure chamber base which combine

to form an airtight container for the projectile; A push button operated pneumatic control enclosure assembly provides automated movement for the chamber cover, automatic pressurization and depressurization of the chamber and provides housing for the air pressure gage; The air pressure gage is used to determine the validity of the ogive seal: a drop in the air pressure indicates a leak in the seal, if tight the air pressure will remain constant; Two projectile standards (leaking and non-leaking) are provided to assure reliability of test operations.

Tabulated Data:

APE No. 22220000
 Unit of Issue Each
 Installation Data:
 Length 65 in.
 Width 37 in.
 Height 8 ft. 9 in.
 Weight 1965 pounds

Utilities Required:

Air at 90 psi

Shipping Data:

Length 73 in.
 Width 55 in.
 Height 93 in.
 Cube 216 cu ft.
 Weight 2747 lb

Associated Equipment

None

Kits:

2222E001 KIT, 8 Inch Projectile
 Air Test

APE 2229--REMOVAL FIXTURE, OBTURATOR

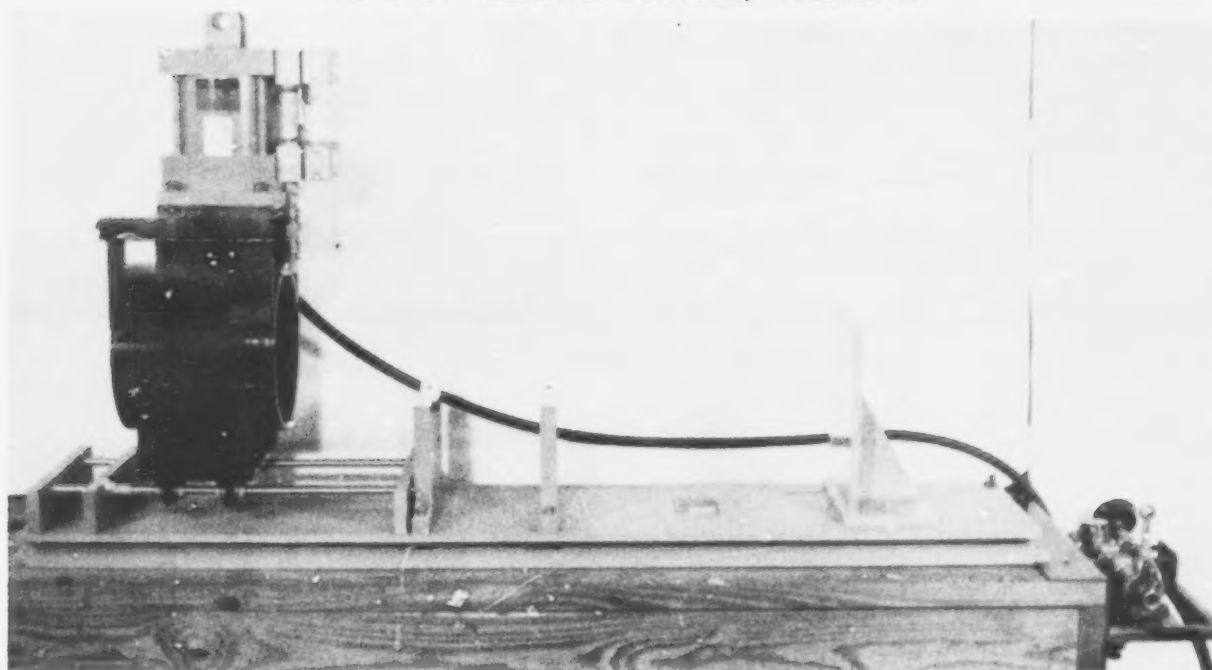


Figure 2-271.8.

Use:

The Obturator Removal Fixture is designed to remove obturators from the 155MM M549/M549A1 HERA projectile. The manually operated, pneumatically powered fixture is mounted on a user supplied bench and holds one manually placed projectile in a horizontal position for obturator removal operations.

Description:

The Obturator Removal Fixture consists of the following principal parts:

1. The obturator removal fixture base which provides structural support.
2. Two adjustable v-block projectile support assemblies which hold and align the projectile dur-

ing obturator removal operations.

3. The obturator cutting tool severs the obturator for removal. The cutting tool is mounted on two shafts for manual alignment over the obturator. Two push buttons, pressed simultaneously, activate a vertically mounted cylinder type air motor, lowering the piston rod to push the obturator cutter through the obturator of the projectile.

4. The filter/regulator/lockout assembly provides the air supply controls of the fixture. The assembly is mounted on a separate bracket to allow the user a choice of locations appropriate to the worksite.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 22290000
Unit of Issue Each

Installation Data:

Length 60-5/8 in.
Width 12 in.
Height 30 in.
Weight 258 lb

Utilities Required:

Air (minimum) 85 PSI at
5 SCFM

Production Capacity:

500 rounds per shift

Shipping Data:

Length 83 in.
Width 56 in.
Height 42 in.
Cube 113 cu. ft.
Weight 978 lb

Associated Equipment:

APE 2230
APE 1278E003

Kits:

None

APE 2230--FIXTURE. OBTURATOR INSTALLATION

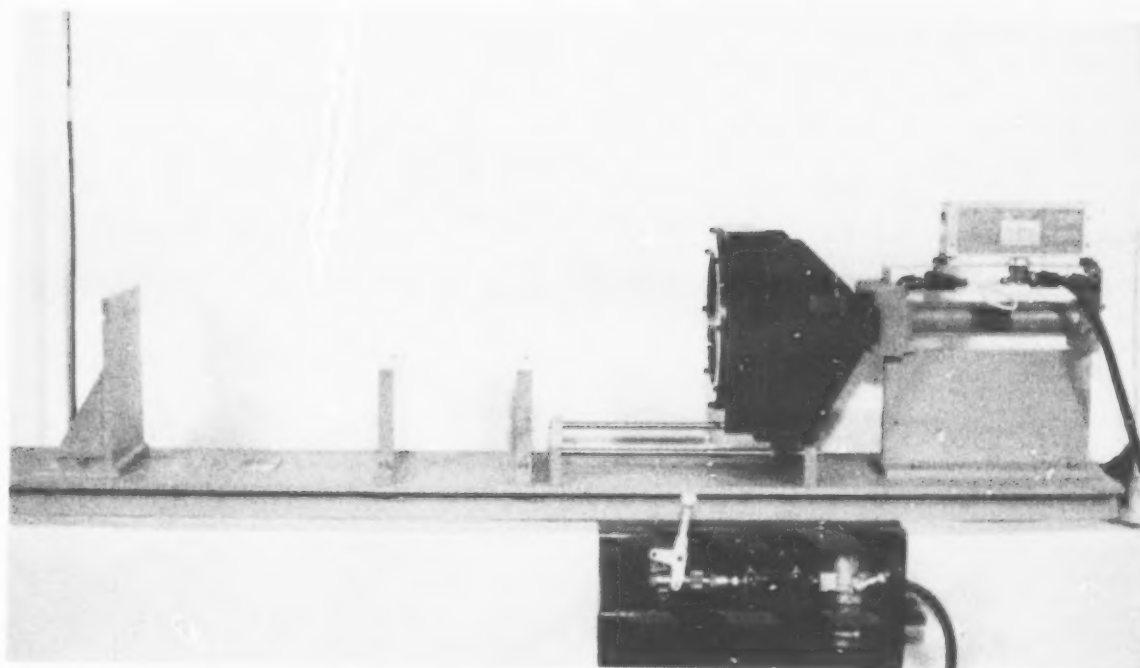


Figure 2-271.9.

Use:

The Obturator Installation Fixture is designed to install obturators on the 155MM M549/M549A1 HERA projectile. A dual push button, pneumatic control unit actuates a cylinder which moves the obturator positioning jaw set forward to push the obturator in place on the projectile. The fixture is mounted on a user provided bench and holds one manually placed projectile in a horizontal position for obturator installation.

Description:

The Obturator Installation Fixture consists of the following principal parts:

1. The obturator installation fixture base which provides

structural support.

2. The two adjustable v-block projectile support assemblies which hold the projectile and align it with the jaw set.

3. The obturator positioning jaw set which presses the obturator into place on the projectile.

4. The filter/regulator/lockout assembly provides the air supply controls of the fixture. The assembly is mounted on a separate bracket to allow the user a choice of locations appropriate to the worksite.

Difference Between Models:
Original Design

Tabulated Data:

APE No. 22300000
 Unit of Issue Each
 Installation Data:
 Length 77 in.
 Width 12 in.
 Height 22 1/2 in.
 Weight 173 lb

Utilities Required:

Air (minimum) 80 PSI at
 1 SCFM

Production Capacity:

500 rounds per shift

Shipping Data:

Length 83 in.
 Width 56 in.
 Height 42 in.
 Cube 113 cu. ft.
 Weight 978 lbs

Associated Equipment:

APE 2229
 APE 1278E003

Kits:

None

APE 3002A--LINKING MACHINE, POWERED, 20MM, M16

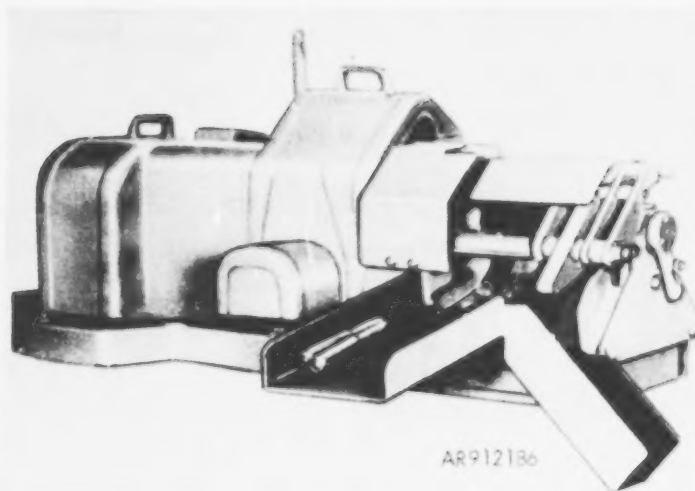


Figure 2-272.

Use:

This machine is used to link 20MM cartridges with M3 or M10 links. Machine can also delink.

Description:

A portable machine with a 1/4 horsepower motor, an ammunition tray, link chute, link loading wheel guide, ammunition feed assembly and two pushers. A special attachment is used to delink.

Difference Between Models:
Original design.

2-562.18

Tabulated Data:

APE No. 30020000A
Unit of Issue Each

Installation Data:

Length 55 in.
Width 48 in.
Height 34 in.
Weight 300 lbs

Utilities Required:

115 230 vac, 60 Hz, single phase.

Production Capacity:

Linking 85 - 150 rounds per minute; delinking 85 - 250 rounds per minute.

Shipping Data:

Length 66 in.
Width 60 in.
Height 28 in.
Cube 64 cu ft
Weight 400 lbs

Associated Equipment:

None.

Kits:

None.

All Data on Pages 2-564 through 2-567, Including Figures 2-273
and 2-274 Deleted.

APE 3041A--CLEANER, PORTABLE VACUUM

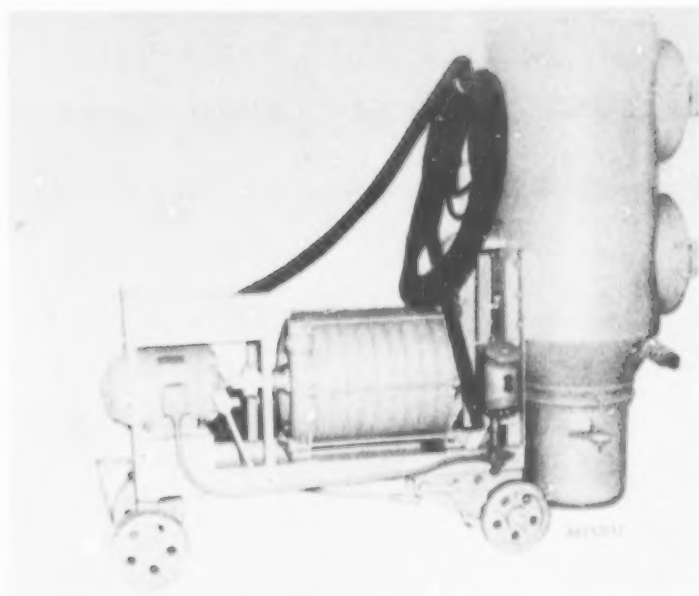


Figure 2-275.

Use:

The vacuum cleaner is used with military ammunition oriented equipment for the pick up of explosive dusts and explosive material.

Description:

The cleaner is a modified commercial type with enclosed filter. It cleans by suction only and is powered by a 5 horsepower motor. The unit is mounted on a four wheel cart.

Difference Between Models:

APE 3041A is a model PC-5 which was manufactured by United States Hoffman Machine Corporation of Syracuse, New York. This item is being replaced by APE 2043.

Tabulated Data:

APE No.	30410000A
Unit of Issue	Each
Installation Data:	
Length	84 in.
Width	25 in.
Height	72 in.
Weight	950 lbs

Utilities Required:
220/440 VAC 3 phase, 60 Hz.
Production Capacity:
Not applicable.

Associated Equipment:
APE 2042.

Kits:
None.

Shipping Data:

Length 88 in.
Width 29 in.
Height 80 in.
Cube 118 cu ft
Weight 1225 lbs

APE 3041B--CLEANER, PORTABLE VACUUM

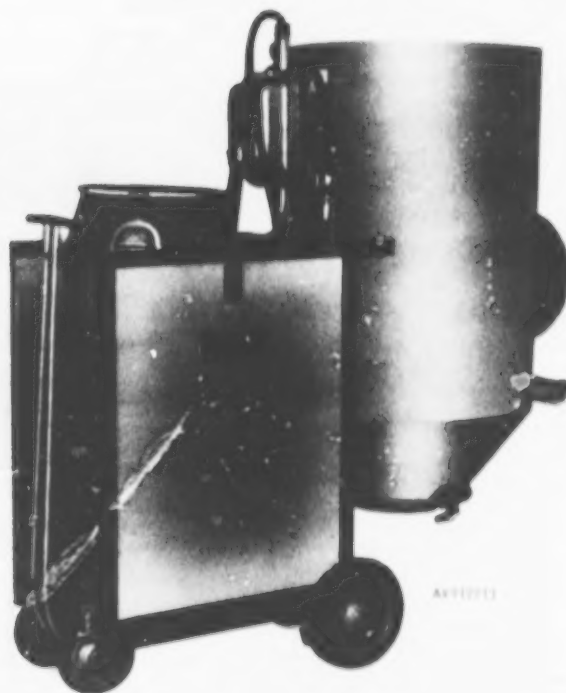


Figure 2-276.

Use:

The vacuum is used with military ammunition oriented equipment for the pick up of explosive dust and explosive material.

Description:

The cleaner is a modified commercial type with enclosed filter. It cleans by suction only and is powered by a 5 horsepower motor. The unit is mounted on a three wheel cart.

Difference Between Models:

APE 3041B is a model P-5 which was manufactured by Allen Billmyre Corporation of South Norwalk, Connecticut. This item is being replaced by APE 2043.

Tabulated Data:

APE No.	30410000B
Unit of Issue	Each
Installation Data:	
Length	67 in.
Width	29 in.
Height	70 in.
Weight	875 lbs

Utilities Required:
220/440 VAC 3 phase, 60 Hz.
Production Capacity:
Not applicable.

Associated Equipment:
APE 2042.

Kits:
None.

Shipping Data:
Length 72 in.
Width 33 in.
Height 78 in.
Cube 108 cu ft
Weight 1175 lbs

APE 5015M1--BOOTH, INSPECTION

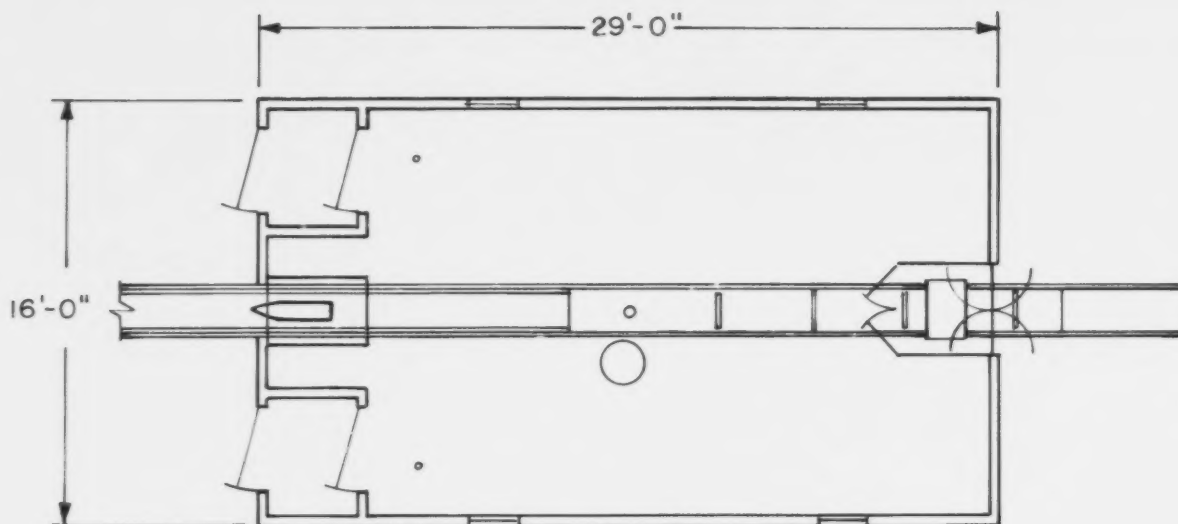


Figure 2-277.

Use:

The APE 5015M1 Inspection Booth is used to inspect and perform agent leak tests on chemical munitions during their unpack for P&P or maintenance. The inspection booth is designed to operate under a slight negative pressure. This prevents escape of the agent from the booths in the event a leaker is found during leak testing.

Description:

The inspection booth consists of a prefabricated, free standing steel structure. It is equipped with two personnel airlocks to maintain negative pressure inside the booth during personnel entry and egress. Two drench type showers are provided for decontamination of personnel. Chemical munitions are introduced into the booth by means of a sloped roller conveyor located on the far end of the booth. A .5 ton jib crane and electric

hoist are provided for handling munitions inside the booth. Inspected munitions exit out of the front of the booth by means of an APE 1022M1 power conveyor. Both the munition input and output conveyor openings are fitted with airlocks to prevent escape of agent if leaking munitions are found. A negative pressure of .05 - .10 H can be maintained inside the booth during operations using three M6A1 gas particulate filters (filters are furnished by user). Required interior ventilation ducting is furnished with the booth.

Difference Between Models:

The APE 5105 booth differs from the APE 5015M1 in that the munition input conveyor is located on the right rear side of the booth instead of the back end of the booth. The 5015 booth is furnished with shower pans to collect contaminated shower water.

Tabulated Data:

APE No. 50150000M1
 Unit of Issue Each
 Installation Data:
 Length 29 ft
 Width 16 ft
 Height 9'9" overall
 9' inside, usable height
 Weight (approx). 7500 lbs
 Utilities Required:
 Electrical - 110V - 1 Ph -
 22 amps; 208 V - 3 Ph - 9
 amps. Water - 1" supply
 line.
 Production Capacity:
 Not applicable.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight 9500 lbs

Associated Equipment:

APE 1022M1, gas particulate
 filters.

Kits:

None.

All Data on Pages 2-574 and 2-575, Including Figure 2-278 Deleted.

2-573

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APE 7007--VISE, NAVY PROJECTILE, VERTICAL MOUNT W/TABLE AIR

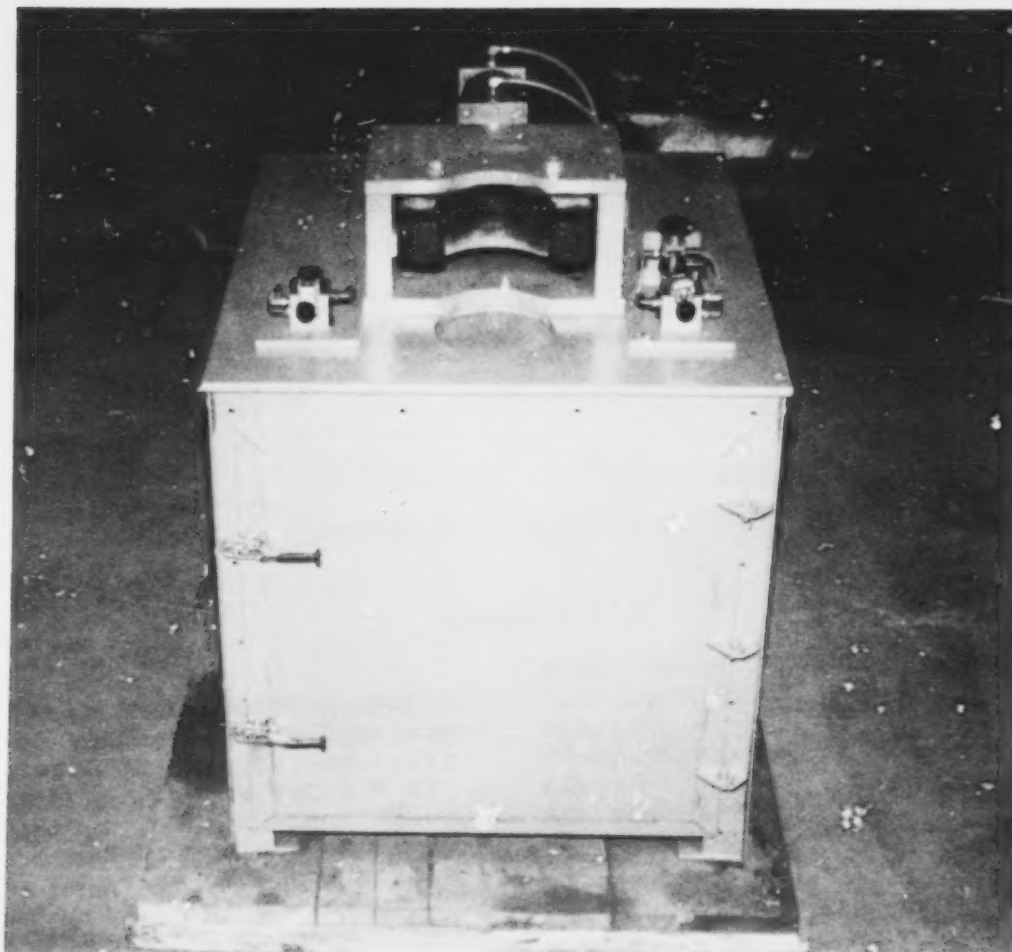


Figure 2-279.

Use:

The vise is hand operated, pneumatically powered vise designed to hold a 3, 4, 5 or 6 inch projectile in a vertical position.

Description:

The vise consists of a power clamp assembly mounted on top of an open-back table assembly. An emergency trap door that is open while a base-ejection type

projectile with expelling charge is clamped in the vise, and which is directly above a water-filled container, is mounted on the table top directly below the clamp jaws. Two hand-operated levers are mounted on the table top on either side of the clamp assembly.

Difference Between Models:

Original Model

Tabulated Data:

APE No. 70070000

Unit of Issue Each

Installation Data:

Length 38 in.

Width 33 in.

Height 44 in.

Weight 1,015 lb

Utilities Required:

Compressed air 2 cfm. at
90 psi.

Production Capacity:

Not applicable.

Shipping Data:

Length Not available

Width Not available

Height Not available

Cube Not available

Weight Not available

Associated Equipment:

None

Kits:

None

APE 7014--VISE, PROJECTILE, 5", ANGULAR MOUNTING

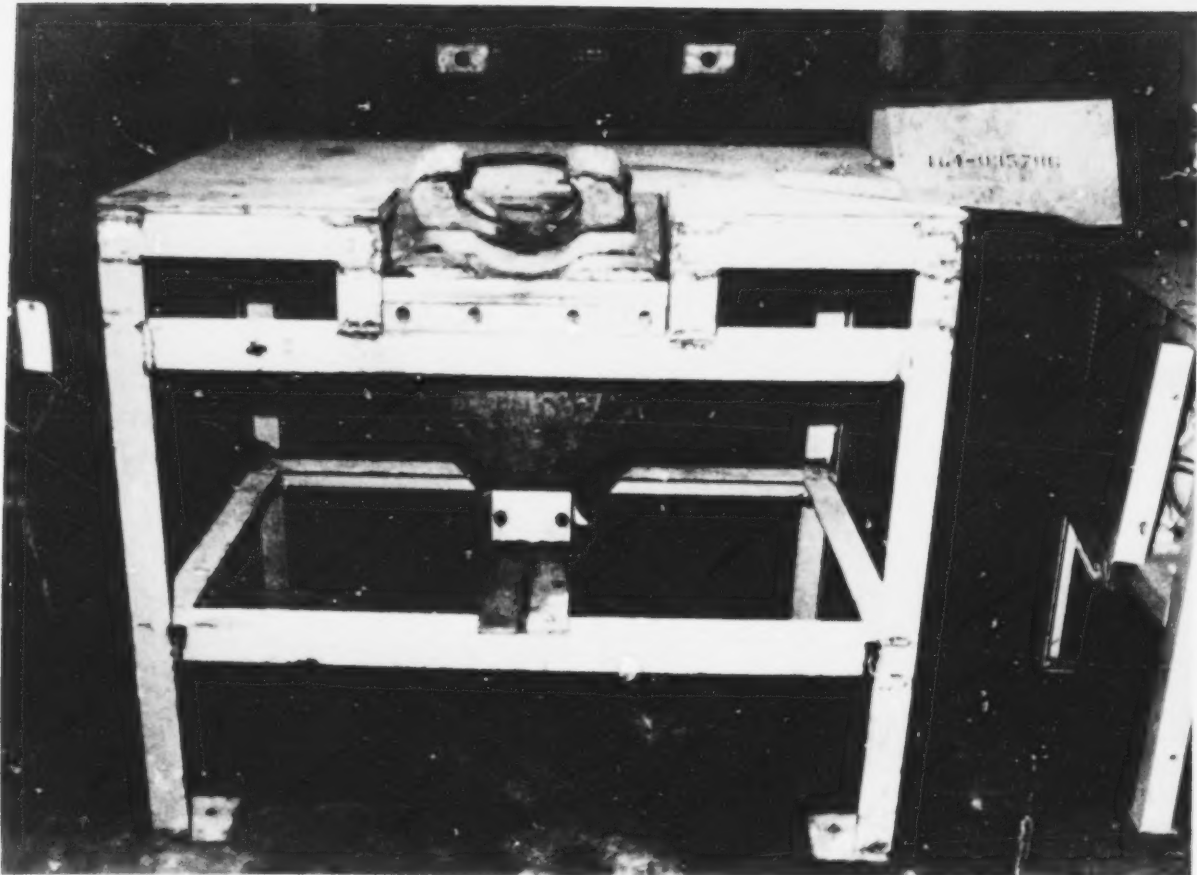


Figure 2-280.

Use:

The 5" projectile angular mounting vise is used to hold 5" projectiles for windshield assembly.

Description:

The vise consists of two circular jaws powered by a 5 inch stroke

air cylinder. The vise is mounted at a 55 degree angle from horizontal on a steel table.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70140000

Unit of Issue Each

Installation Data:

Length 48 in.

Width 30 in.

Height 48 in.

Weight 250 lbs

Utilities Required:

Air at 100 psi.

Production Capacity:

Not applicable.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

None.

Kits:

None.

APE 7019--CRIMPER, 5"/38 AND 5"/54 CARTRIDGE CASE

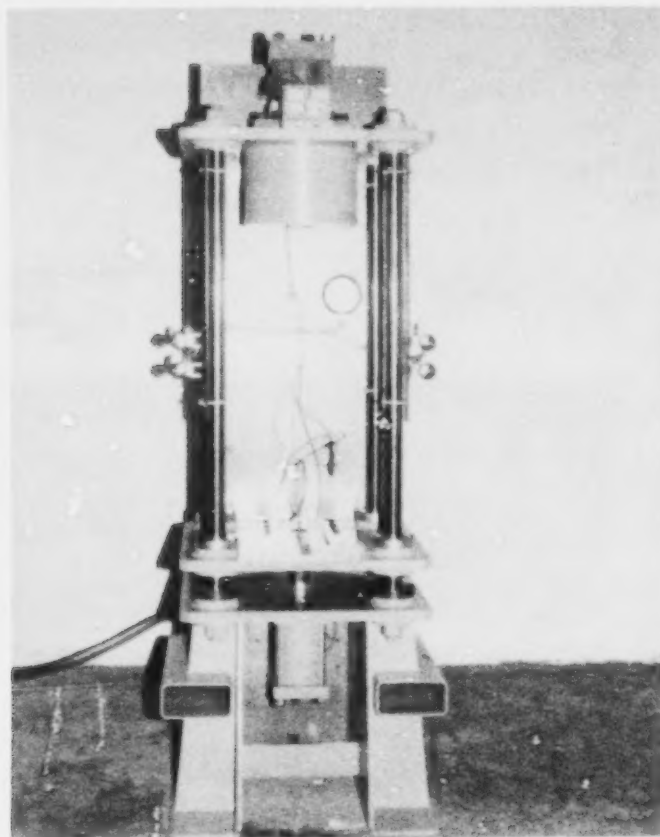


Figure 2-281.

Use:

The case crimper is used to crimp a plug into the 5"/38 and 5"/54 propelling charges. The crimper can also be used to pull plugs from the propelling charge cartridge cases.

assembly. The machine is operated by compressed air using a hydraulic circuit powered by an air over oil booster unit.

Difference Between Models:
Original design.

Description:

The machine consists of a base, movable platen and a crimping head

Tabulated Data:

APE No. 70190000
 Unit of Issue Each
 Installation Data:
 Length 39-1/4 in.
 Width 33-3/4 in.
 Height 90 in.
 Weight 2600 lbs
 Utilities Required:
 Air at 100 psi.
 Production Capacity:
 200 per hour crimping.
 125 per hour pull apart.

Shipping Data:

Length 53 in.
 Width 57 in.
 Height 100 in.
 Cube 175 cu ft
 Weight 3270 lbs

Associated Equipment:

None.

Kits:

None.

APE 7020--FIXTURE, IMPACT TESTING

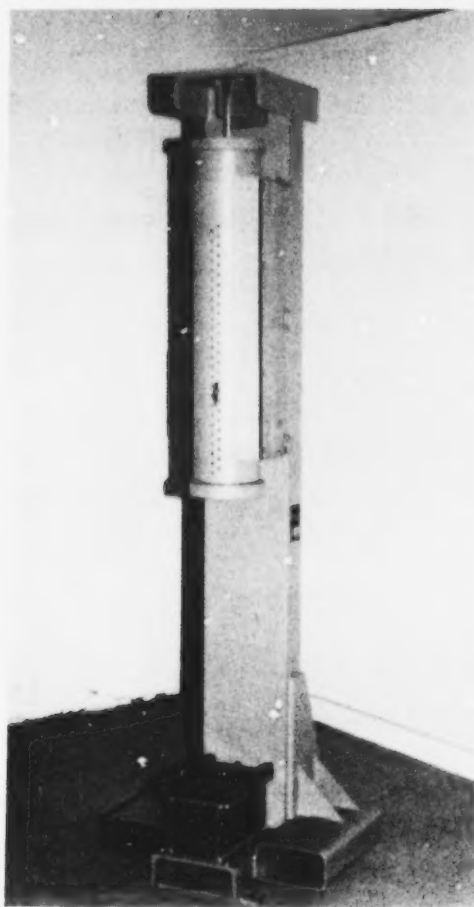


Figure 2-282.

Use:

The impact testing fixture is used to impact test 5"/38 and 5"/54 propelling charges to assure proper securing of the plug to the cartridge case.

Description:

The fixture consists of a frame, a barrel assembly with a piston as-

sembly for the impact testing and a cartridge case support for both the 5"/38 and 5"/54 propelling charges.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70200000
 Unit of Issue Each
 Installation Data:
 Length 24 in.
 Width 26 in.
 Height 85-1/2 in.
 Weight 610 lbs
 Utilities Required:
 None.
 Production Capacity:
 60 per hour.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

None.

APE 7021--TESTER, BOMB FUZE CABLE

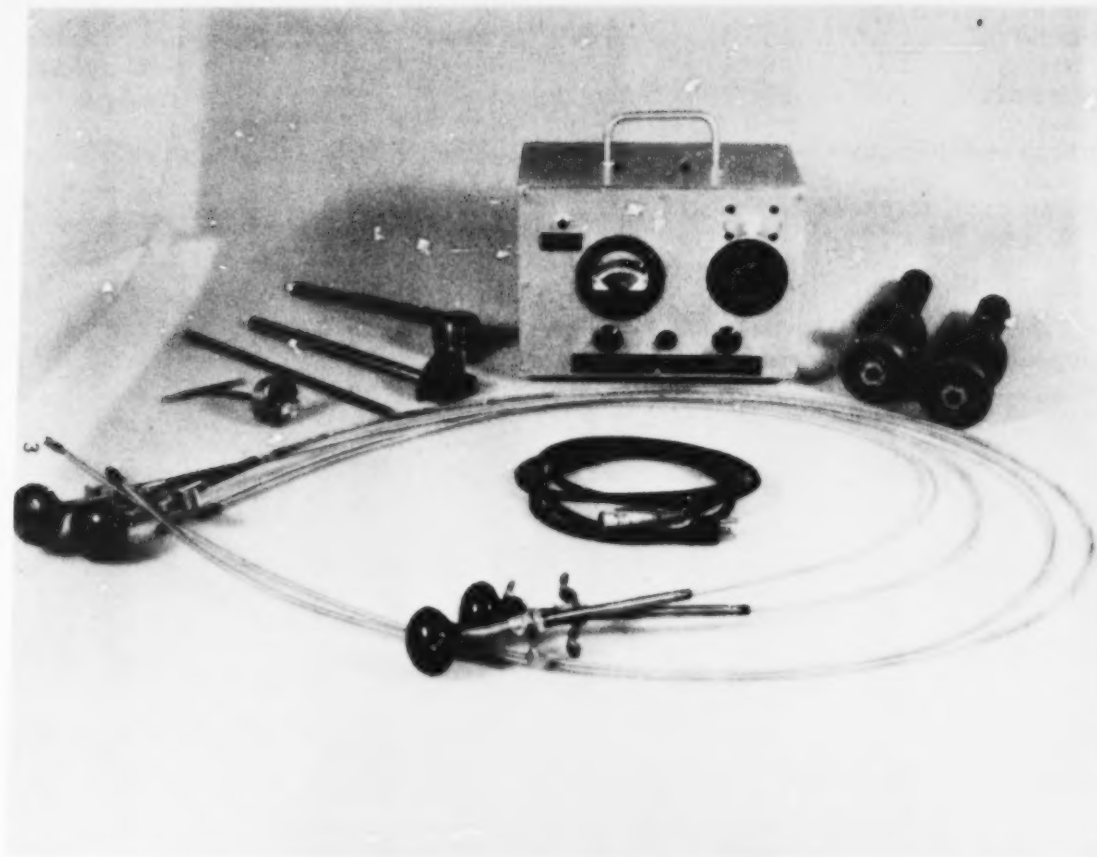


Figure 2-283.

Use:

The bomb fuze cable tester consists of two units. The low voltage tester is used to make continuity tests on cable assemblies in bombs containing high explosives. The high voltage tester is used for continuity tests and electrical leakage tests on cable assemblies prior to insertion of the cable assembly into the loaded bomb.

2-584

Description:

The bomb testers consist of a low voltage tester, a high voltage tester, two cable inserting tools, a retaining clip removal tool, a lock ring inserting tool and a retaining clip insertion tool.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70210000

Unit of Issue Each

Installation Data:

Length not available

Width not available

Height not available

Weight not available

Utilities Required:

Leakage test voltage - 500

VDC. Low voltage - dry cell

batteries 1.5 V.

Production Capacity:

Not available.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

None.

Kits:

None.

All Data on Pages 2-586 and 2-587, Including Figure 2-284 Deleted.

APE 7023M1--VISE, PROJECTILE, NAVY

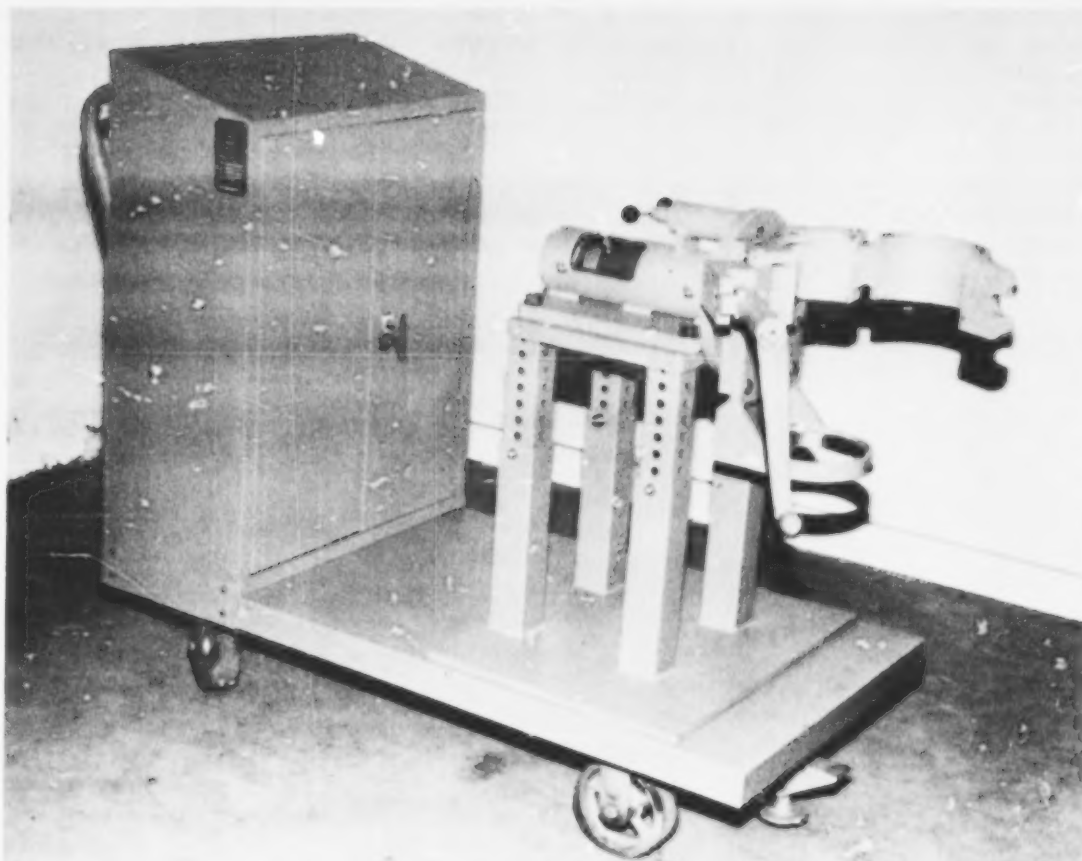


Figure 2-285.

Use:

The Navy projectile vise is used to hold 3"/50, 5" & 6" projectiles while performing various assembly and disassembly operations. The vise may be removed from the cart and mounted on a table if required.

Description:

The vise consists of the vise with six sets of jaws, nine nose adapters, two locating brackets and a cart assembly with storage

cabinet. The vise rotates 360 degrees and locks at 90 degree intervals.

Difference Between Models:

The APE 7023M1 was made with new components of welded and machined construction to replace cast components on the original design. It is now mounted on a cart and a cabinet is provided for storage of the jaws, adapters and brackets.

Tabulated Data:

APE No. 70230000M1

Unit of Issue Each

Installation Data:

WISE & CART

Length 62 in.

Width 24 in.

Height 43-1/2 in.

Weight 600 lbs

WISE

Length 32 in.

Width 14 in.

Height 15 in.

Weight 190 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 63 in.

Width 34 in.

Height 45 in.

Cube 62 cu. ft.

Weight 875 lbs.

Associated Equipment:

None.

Kits:

7023E001 KIT, Jaw, M180

Demolition Kit

APE 7025 -- PROJECTILE CAVITY DRILLING EQUIPMENT

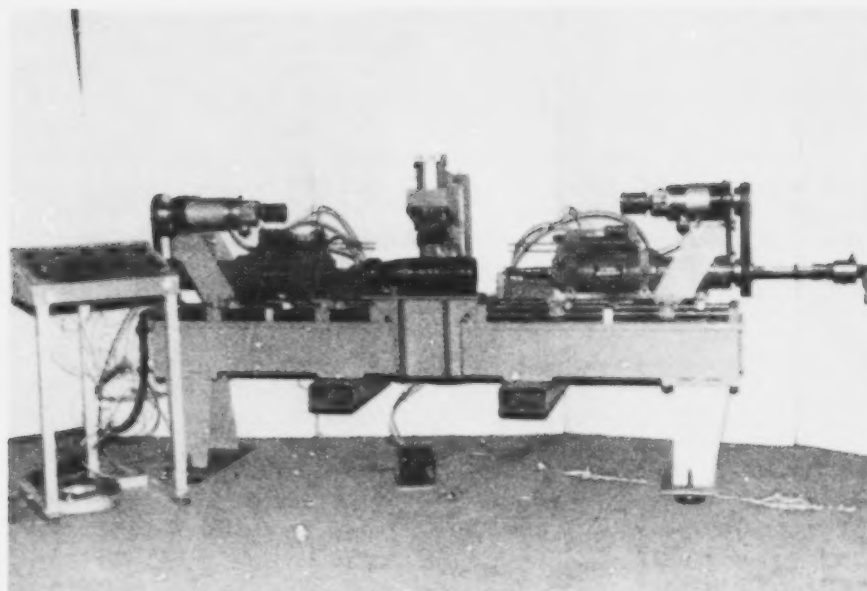


Figure 2-285.1.

Use:

The projectile cavity drilling equipment is a pneumatically powered double-end cavity drill that is used to drill fuze cavities in the nose and/or base end of explosive loaded Army and Navy projectiles.

Description:

The machine consists of a drilling table assembly with a pneumatic drill unit positioned at each end and a holding fixture with a pneumatic clamp assembly in the center, which provide vertical pressure for holding a projectile during drilling operations. The nose end fixed drill assembly is bolted in place on the drilling table. An air cy-

linder, located under the base end of the drilling table, moves the base end sliding drill assembly back and forth. This action provides the horizontal force to hold a projectile during a drilling operation. Both drill assemblies are designed such that the rotational speeds of the quills cannot exceed the constraints of AMC-R-385-100. They are also designed to be connected to a vacuum system, which will collect the explosive as it is drilled from a projectile. The vacuum system is interlocked with the pneumatic system so the machine will not operate if the vacuum system is not operating. The machine is connected to a remote control console assembly by a

pneumatic connector assembly, which permits a separation up to 100 feet between the machine and control console. Interchangeable large projectile handling components and small projectile handling components are furnished as parts for the cradle, positioner and clamp assemblies. The handling components are used to accommodate these assemblies for operations on the various sizes of projectiles.

The following projectiles are those for which this machine and its associated kits are designed:

(1) Army - 90MM, 105MM, 4.2 inch 155MM and 8 Inch;

(2) Navy - 3 Inch/50 caliber, 5 inch/38 caliber, 5 inch/54 caliber, 6 inch/47 caliber and 8 inch/55 caliber.

Difference Between Models:
Original Design.

Tabulated Data:
Projectile Cavity Drilling
Equipment

APE No. 70250000
Unit of Issue Each
Installation Data:
Length 150 in.
(12 ft 6.0 in.)
Width 34 in.
(2 ft 10.0 in.)
Height 60 in.
(5 ft)
Weight 3000 lbs.
Cube 177 cu ft
Required Floor
Space 35.4 sq ft
Required Utilities
Compressed air at 80 to
100 PSI and 200 cu. ft. per
minute minimum volume
Production Capacity: Approximate
drilling time, 1 minute per
1 round

Control Console Assembly

Shipping Data:

Length 30 in.
(2 ft 6 in.)
Width 23 in.
(1 ft 11 in.)
Height 38 in.
(3 ft 2 in.)
Weight 200 lbs
Cube 15.2 cu ft
Required Floor
Space 5 sq ft
Pneumatic Connection
Assembly:
Length 100 ft
Associated Equipment:
Vaccum draw-off system,
200 cubic feed per minute
with suction of 6.0
inches of mercury.

Kits:

7025E001 Kit, 5"38 IR, 5/38"
VT MK51 MOD, 5"/54 VT MK41
MOD 0 Cutter Head
7025E002 Kit, 5"/38 Recap
Cutter Head
7025E003 Kit, 5"/38 HE-CVT
MK66 and MK379 ADF Cutter
Head
7025E004 Kit, 5"/54 MK64, MK65
and MK396 ADF Cutter Head
7025E005 Kit, 5"/54 AAC MK61
MOD 0 Cutter Head
7025E006 Kit, 5"/54 FCL VT
MK73 and MK360, MK361 and
MK362 VT
7025E007 Kit, 5"/54 and
5"/38 MK54 ADF Cutter Head
7025E008 Kit, Army Project-
tile Cutter Head
7025E009 Kit, 3"/50, 6"47
and 8"/55 MK44 and MK52
Cutter Head
7025E010 Kit, 5"/38 and
5"/54 MK83 Cutter Head
7025E011 Kit, 3"/50, 6"/47
and 8"/55 MK54 and MK55 ADF
Cutter Head
7025E012 Kit, Navy Base Fuze
Cutter Head
7025E014 Kit, 90MM Army
Setup Tooling
7025E015 Kit, 105MM Army
Setup Tooling
7025E016 Kit, 155MM Army
Setup Tooling

Kits (Cont'd):

7025E017 Kit, 8 inch Army
Setup Tooling
7025E018 Kit, 3 Inch Navy
Setup Tooling
7025E019 Kit, 5"/38 and 5"/54
Navy Tooling
7025E020 Kit, 6 Inch Navy
Setup Tooling
7025E021 Kit, 8 Inch Navy
Setup Tooling
7025E022 Kit, 5"/54 Projectile
Nose End Drill Bushing
7025E023 Kit, 5"/38, 6 Inch and
8 Inch Navy Projectile
Nose End Drill Bushing
7025E024 Kit, 3"/50 and Army
Projectile Nose End



APE 7031--CART, PROJECTILE, NAVY

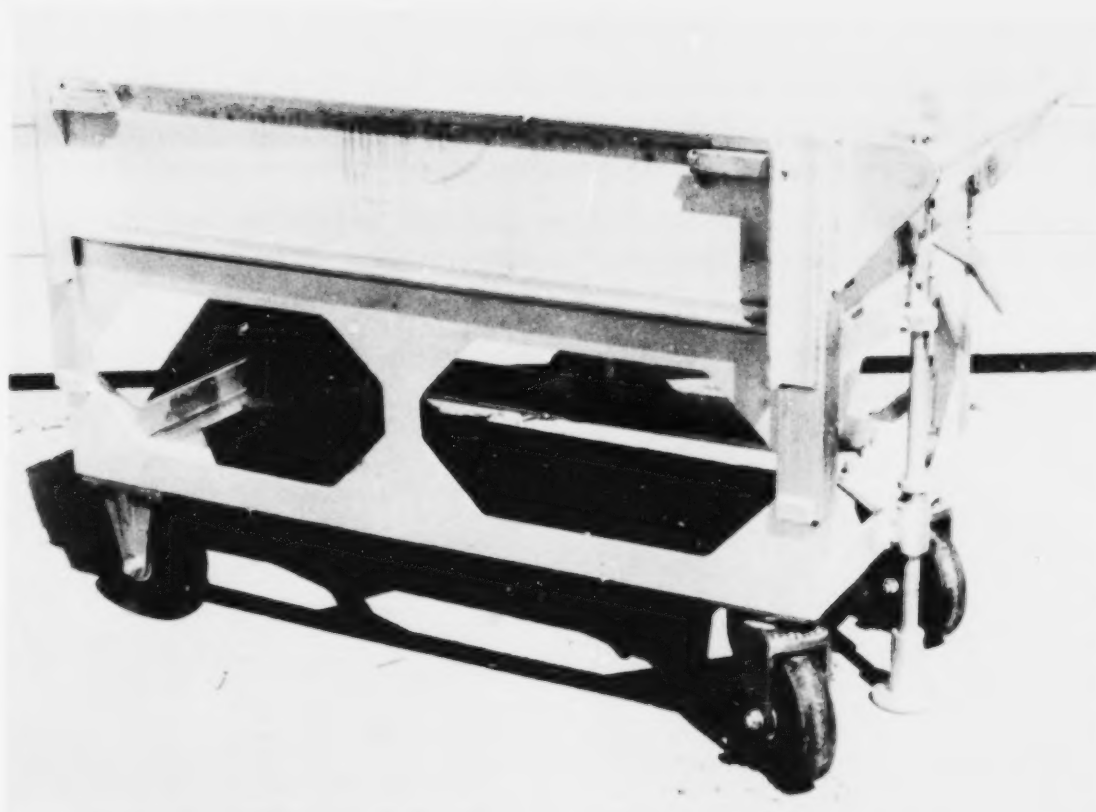


Figure 2-286.

Use:

In plant movement of heavy munition items or components, especially Navy 5" and 6" projectiles.

Description:

Aluminum fabricated cart with casters and brake. Bed of cart measures 25 inches by 50 inches.

Difference Between Models:
Original design.

(2-590.3 Blank)/2-590.4

Tabulated Data:

APE No. 70310000

Unit of Issue Each

Installation Data:

Length 57 in.

Width 28 in.

Height 36-3/4 in.

Weight not available

Utilities Required:

Not applicable.

Production Capacity:

Not applicable.

Shipping Data:

Length 62 in.

Width 32 in.

Height 42 in.

Cube 48 cu ft

Weight not available

Associated Equipment:

None.

Kits:

None.

APE 7032--MACHINE, GRIT BLAST

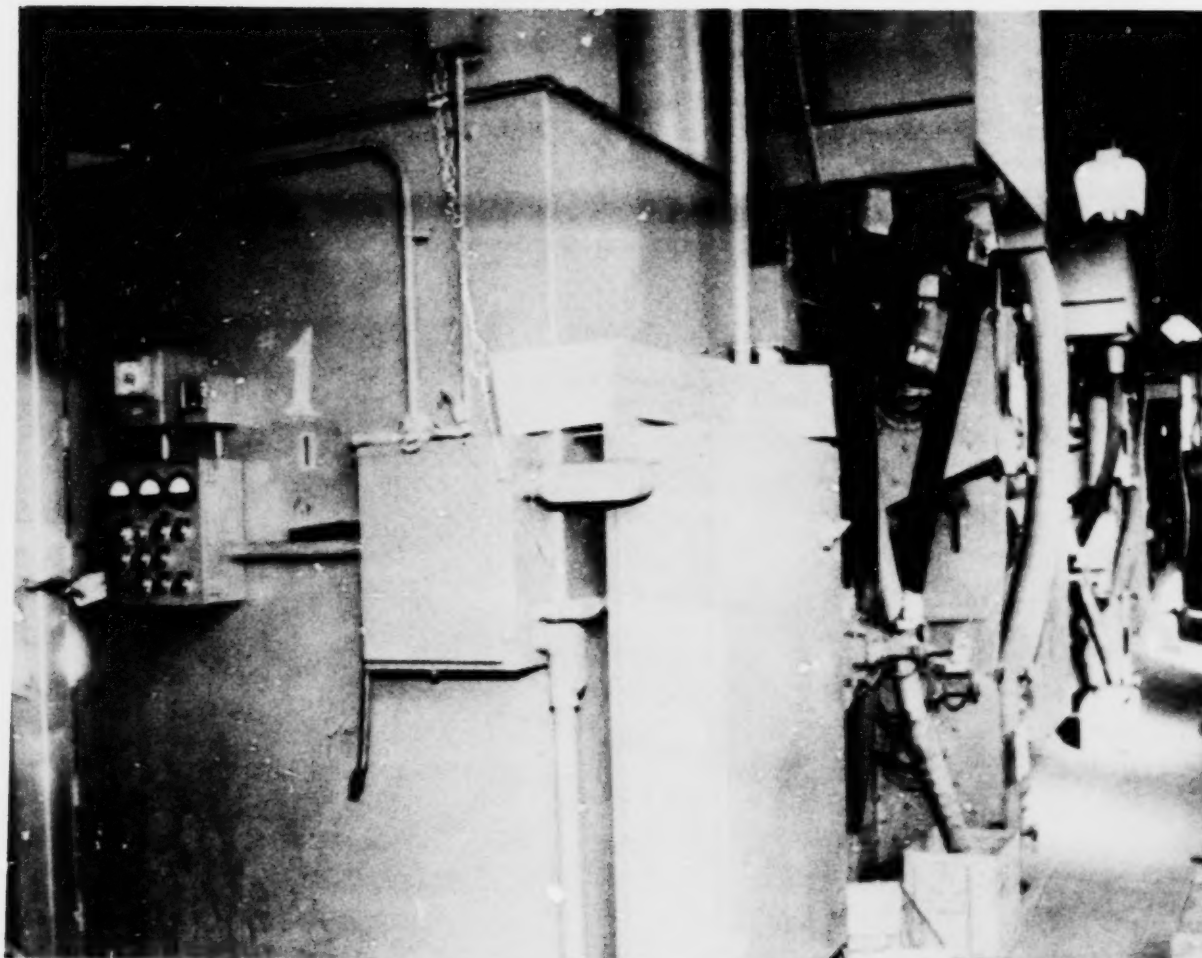


Figure 2-287.

Use:

This machine will blast clean exteriors of Navy 3" diameter to 16" diameter powder cans and cartridge cases.

Description:

This item consists of the grit blast machine with separator, elevator, cabinet, dust collector, and two speed monorail.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 70320000
 Unit of Issue Each
 Installation Data:
 Length 10 ft
 Width 5 ft 9 in.
 Height 6 ft
 Weight 95,700 lbs
 Utilities Required:
 220 VAC, 60 Hz, 3 phase.
 Production Capacity:
 Not available.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

None.

APE 7033--MACHINE, DISASSEMBLY, 20MM, NAVY

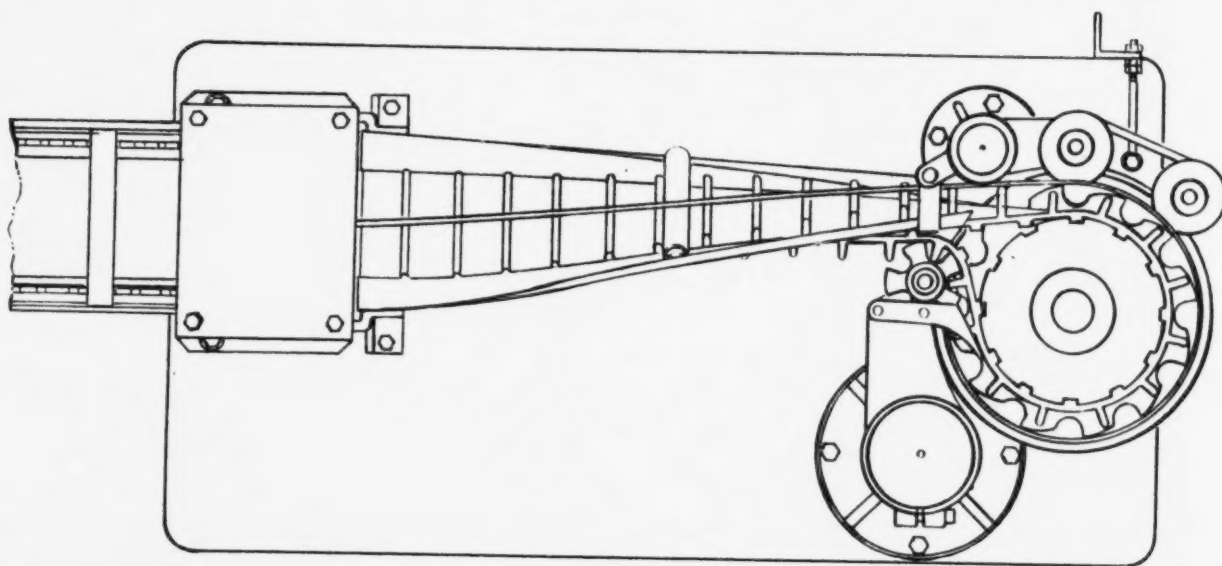


Figure 2-288.

Use:

The disassembly machine is used to separate Navy 20MM projectiles from the cartridge case and dump the propellant. The machine removes the rounds from the shipping tubes before the breakdown process.

Description:

The machine consists of a base assembly, presser arm assembly, stripper idler assembly, breakoff assembly and air assembly. The operation is automatic.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70330000

Unit of Issue Each

Installation Data:

Length 4 ft

Width 3 ft

Height 6 ft

Weight 800 lbs

Utilities Required:

Air at 90 psi.

Production Capacity:

180 rounds per minute.

Shipping Data:

Length not available

Width not available

Height not available

Cube not available

Weight not available

Associated Equipment:

None.

Kits:

None.

APE 7040--MACHINE, MEDIUM CALIBER DEFUZE-DEPLUG

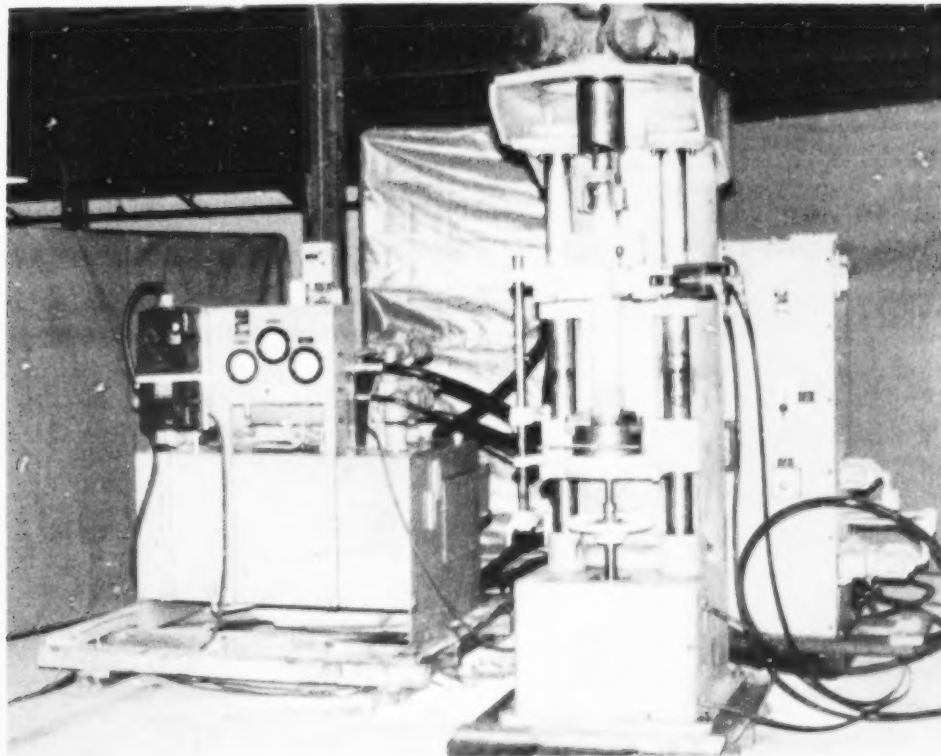


Figure 2-288.1.

Use:

The defuze-deplug machine is designed to remove fuzes, plugs and adapters from the nose or base of medium caliber projectiles in a remote operation that can permit loading of projectiles onto the machine manually or robotically.

Description:

The machine consists of the unit for defuzing or deplugging; a hydraulic power unit; and, a programmable controller. The defuzing or deplugging unit can handle two projectiles at the same time, performing operations

with projectiles in a horizontal position. The projectiles are moved into position by means of two hydraulically operated slides. The projectiles are clamped in place and tooling engages the fuze or plug. As the tooling rotates at a predetermined rate, the slides back the projectiles away from the tooling. The programmable controller assures all operations are done in the sequences as programmed.

Difference Between Models:
Original model.

Tabulated Data:

APE No. 70400000
Unit of Issue Each
Installation Data:

Dual Spindle
Defuzer

Length 78 inches
Width 40 inches
Height 50 inches
Weight Not available

Hydraulic Power
Unit

Length Not available
Width Not available
Height Not available
Weight Not available

Programmable
Controller

Length Not available
Width Not available
Height Not available
Weight Not available

Utilities Required:

Electrical
440-460 line voltage, 60 Hz,
phase 120 Vac, 60 Hz, Pro-
grammable controller operates
on 115 VAC or 20 VAC, 50/60 Hz

Production Capacity:

Shipping Data:

Length Not available
Width Not available
Height Not available
Cube Not available
Weight Not available

Associated Equipment:

None

Kits:

None

APE 7040A--MACHINE, MEDIUM CALIBER DEFUZE-DEPLUG

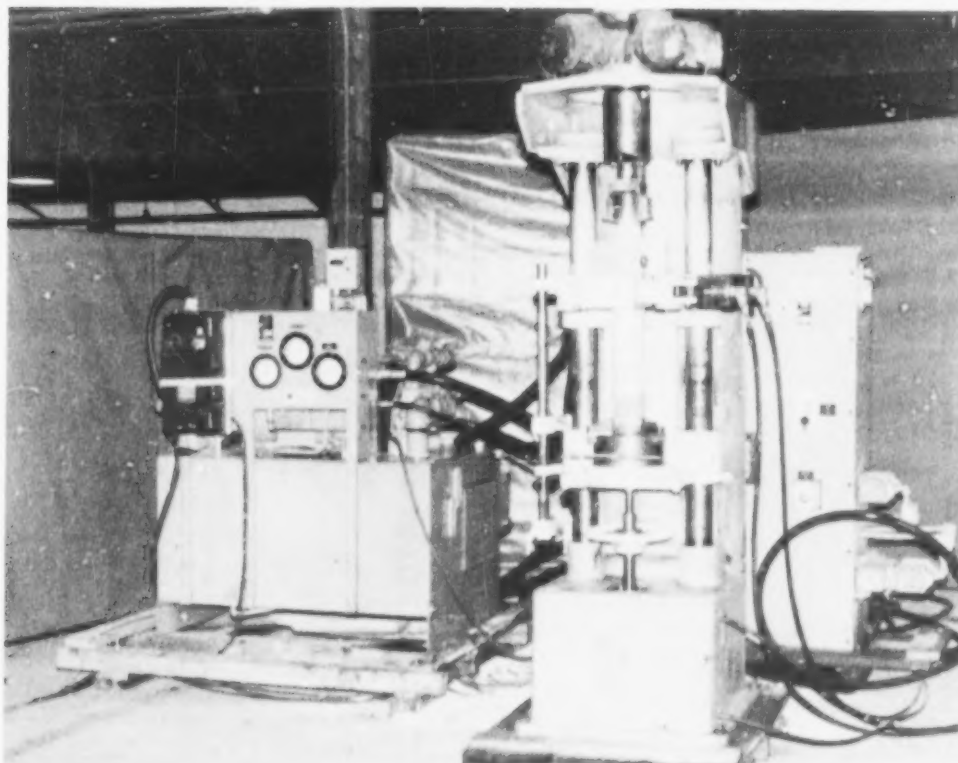


Figure 2-288.2.

Use:

The defuze-deplug machine is used to remove fuzes, plugs, or adapters from medium caliber projectiles in a remote operation.

Description:

The machine consists of the defuzing-deplugging machine that accommodates projectiles in the vertical position. A lift bed raises the projectile, clamped in a vise, into proximity of the tool holder. The hydrau-

lically operated tool holder, fitted with tooling appropriate to the removal task being performed, engages the fuze/plug and rotates at a predetermined speed to remove fuze/plug. The machine is powered by a hydraulic power unit equipped with door interlock switches, and operated from a hydraulic control panel located remotely from the machine.

Difference Between Models:
Original model.

Tabulated Data:

APE No. 70400000A
Unit of Issue Each
Installation Data:

Defuzer/Deplugger

Length 48 inches
Width 36 inches
Height 106 inches
Weight Not available

Control Panel

Length 40 inches
Width 20 inches
Height 66 inches
Weight Not available

Hydraulic
Power Unit

Length 60 inches
Width 52 inches
Height 54 inches
Weight Not available

Utilities Required:

Electrical 220/440 VAC,
 60 Hz, 3 phase

Production Capacity:

Shipping Data:

Length Not available
Width Not available
Height Not available
Cube Not available
Weight Not available

Associated Equipment:

None

Kits:

APE 7040E001	Kit, M55 Chemical Rocket Warhead Fuze Removal
APE 7040E002	Kit, M55 Chemical Rocket Warhead Adapter Removal

APE 7041M1--MACHINE, HYDRAULIC STAKING, 0-6 TON BENCH TYPE

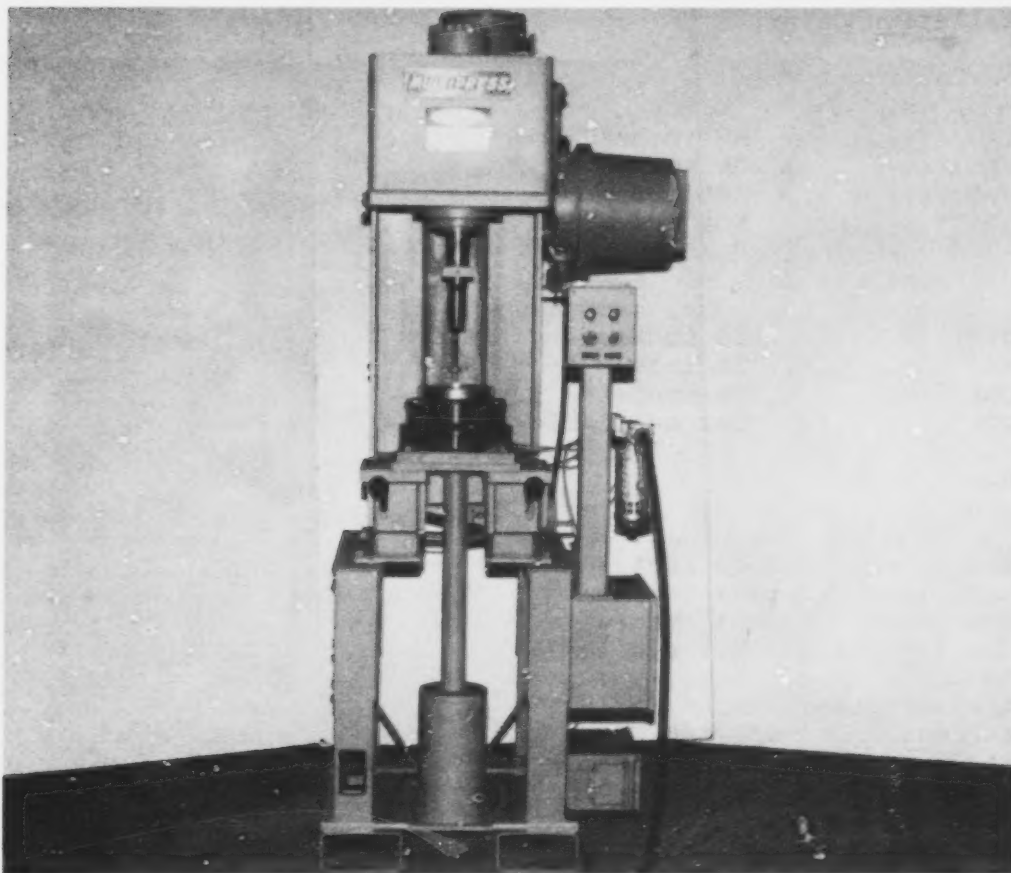


Figure 2-289.

Use:

The machine is designed to stake an auxiliary detonating fuze (ADF) to a fuze adapter for use in Navy projectiles. The machine is used to stake the following ADF's and adapters: 2.65 inch external thread diameter adapter (Drawing No. 434045) to ADF's model numbers MK54 MOD 2 (Drawing No. 490100) and MK89 MOD 0 (Drawing No. 180359).

2.35 inch external thread diameter adapter (Drawing No. 434054) to ADF's model numbers

MK43 MOD 0 & 1 (Drawing No. 394538), MK54 MOD 0 & 1 (Drawing No. 438127), and MK55 MOD 0 & 1 (Drawing No. 438127).

2.20 inch external thread diameter adapter (Drawing No. 2838990) to ADF model number MK54 MOD 2 (Drawing No. 2838991).

Description:

The machine consists of: A hydraulic press staking machine, with inching wheel; A pneumatically operated precision work holder which retains and aligns

the ADF and its adapter to within 0.002 inch diameter; The staking head which stakes the fuze body into the adapter; A hydraulic/pneumatic control assembly which interfaces between the hydraulic operated staking machine and the pneumatically operated work holder assembly to insure that the work holder is engaged before the staking machine can function and that the staking operation is

complete before the work holder can be disengaged.

Difference between models:

(1) The bench press of the APE 7041 has an 18 inch daylight opening. The bench press of the APE 7041M1 has a 20 inch daylight opening. (2) The pneumatic controls for the APE 7041M1 were changed to incorporate model changes in the manufacturer's components.

Tabulated Data:

Length 37-1/2 in.
 Width 32-3/4 in.
 Height 83-5/8 in.
 Weight 1620 lbs.
 Floor Space Occupied: 8.5 sq. ft.
 Cube 59.4 cu. ft.

Utilities required:

Electrical: 230/460 volts,
 3 phase, 60 hertz
 Air: 90 psig
 Water: 45 psig

Production Capacity:
 120 per hour

Shipping Data:

Length Not available
 Width Not available
 Height Not available
 Cube Not available
 Weight Not available

Associated Equipment
 None.

Kits:

7041E001 Kit, Igniter Remover
 Demilitarization of
 M180 Demolition Kit

APE 7042--MACHINE, PROJECTILE GAS CHECK GASKET REMOVAL
5-INCH, 6-INCH AND 8-INCH NAVY GUN PROJECTILES

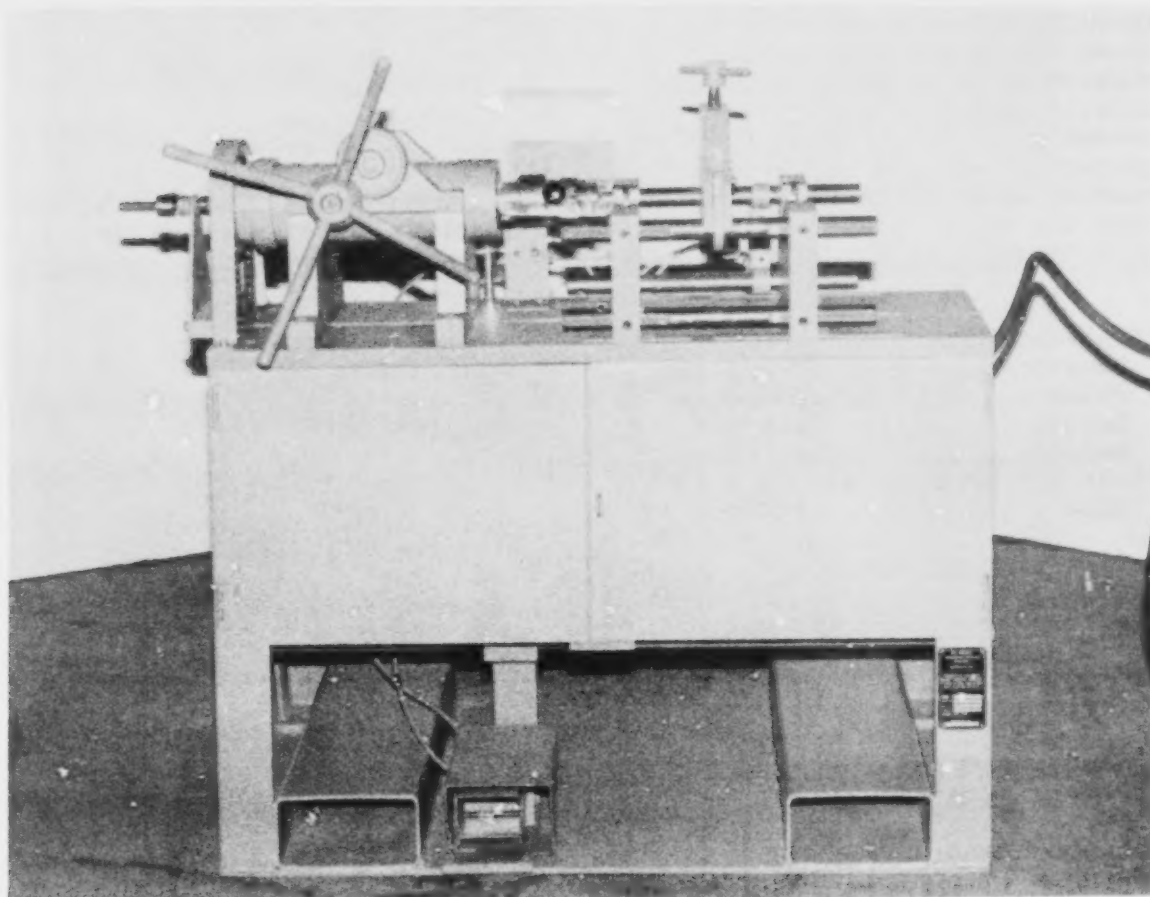


Figure 2-290.

Use:

The gas check gasket removal machine is used to cut the gas check gasket for removal from the projectile.

Description:

The machine is a horizontal, manually-operated, air-driven machine that locates and clamps a projectile in a cradle vise to prevent

its rotation during the cutting cycle. The cutting head, powered by an air motor, is designed to enable the operator to align the hole pins of the locking head with the pin holes of the projectile base fuze or base fuze hole plug.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70420000
 Unit of Issue Each
 Installation Data:
 Length 48 in.
 Width 24 in.
 Height 44 in.
 Weight 458.5 lbs
 Utilities Required:
 Air - 90 psig and 30 cfm.
 Production Capacity:
 Not available.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

None.

All Data on Pages 2-600 and 2-601, Including Figure 2-291 Deleted.

TM 43-0001-47

APE 7057--MACHINE, CARTRIDGE VIBRATOR AND PROJECTILE SEATING, 106MM

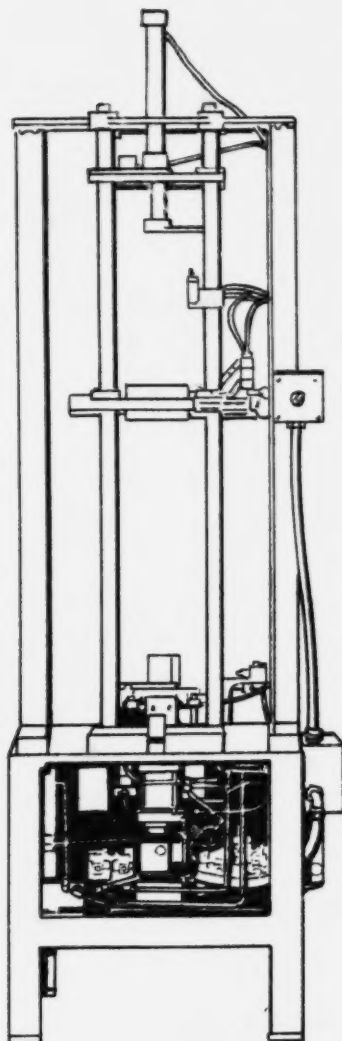


Figure 2-292.

Use:

To seat 106mm projectile, HEAT M344A1, in the 106mm M93B1 cartridge case.

Description:

The APE 7057 is a vertical, pneumatically powered and controlled cartridge assembly machine.

Difference Between Models:

Original design.

Tabulated Data:

APE No. 70570000

Unit of Issue Each

Installation Data:

Length 22 in.

Width 30 in.

Height 84 in.

Weight 425 lbs

Utilities Required:

Air at 90 psi and 25 cfm.

Production Capacity:

400 per shift (estimate).

Shipping Data:

Length 30 in.

Width 36 in.

Height 90 in.

Cube 56 cu ft

Weight 500 lbs

Associated Equipment:

Approved barricade.

Kits:

None.

APE 7066 -- DEFUZING MACHINE 8"/55 AND 16"/50 PROJECTILES

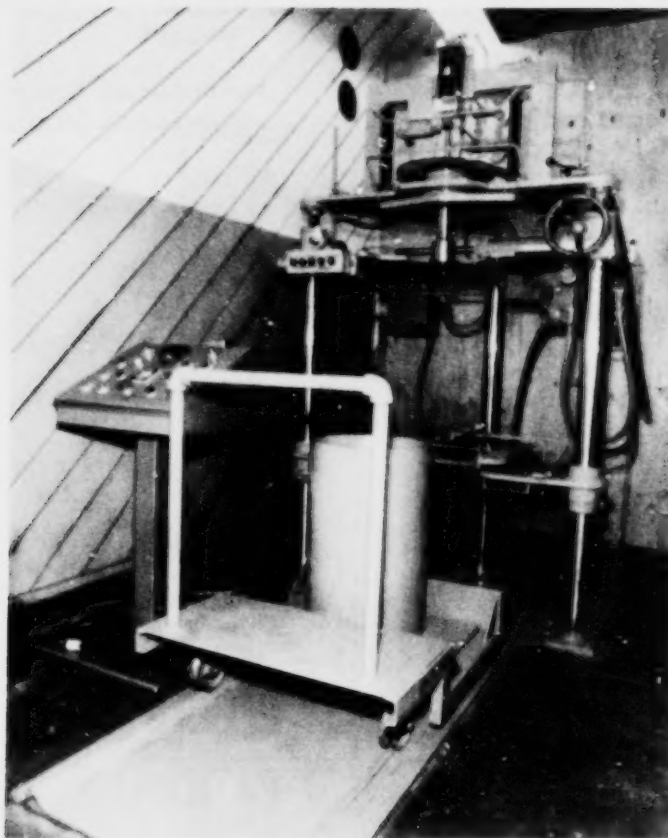


Figure 2-293.

Use:

The defuzing machine is used to remove base fuzes, nose fuzes and an auxiliary adapter, from 8"/55 and 16"/50 Navy projectiles.

Description:

The machine consists of a base plate and three columns; an upper table that can be elevated or lowered to a desired height, with three screw jactuators, for base

or nose fuze removal; a table which is elevated or lowered, using an air-driven hydraulic pump for clamping the projectile; four lever-operated valves to manually control machine functioning; and a pedestal-mounted control panel used for remote machine control.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70660000
Unit of Issue Each

Installation Data:

MACHINE

Length 60 in.
Width 49 in.
Height 119 in.
Cube 202 cu ft
Weight (est) . 3200 lbs
Occupied floor
space 20 sq ft

AMMUNITION CART

Length 54 in.
Width 36 in.
Height 50 in.
Cube 56.25 cu. in.
Weight (est) . 525 lbs

Utilities Required:

Air 80 cfm @ 100 psi. 110v,
60 cycle single phase, (20
amp service line).

Production Capacity (est):

2 rounds per hour.

Shipping Data:

MACHINE

Length 66 in.
Width 54 in.
Height 125 in.
Cube 257 cu ft
Weight 3550 lbs

AMMUNITION CART

Length 60 in.
Width 40 in.
Height 56 in.
Cube 77 cu ft
Weight 725 lbs

Associated Equipment:

APE 7067, 7068.

Kits:

7066E001 KIT for remove fuze
from 8"/55

APE 7067--MACHINE, SWING BRUSH, 16"/50

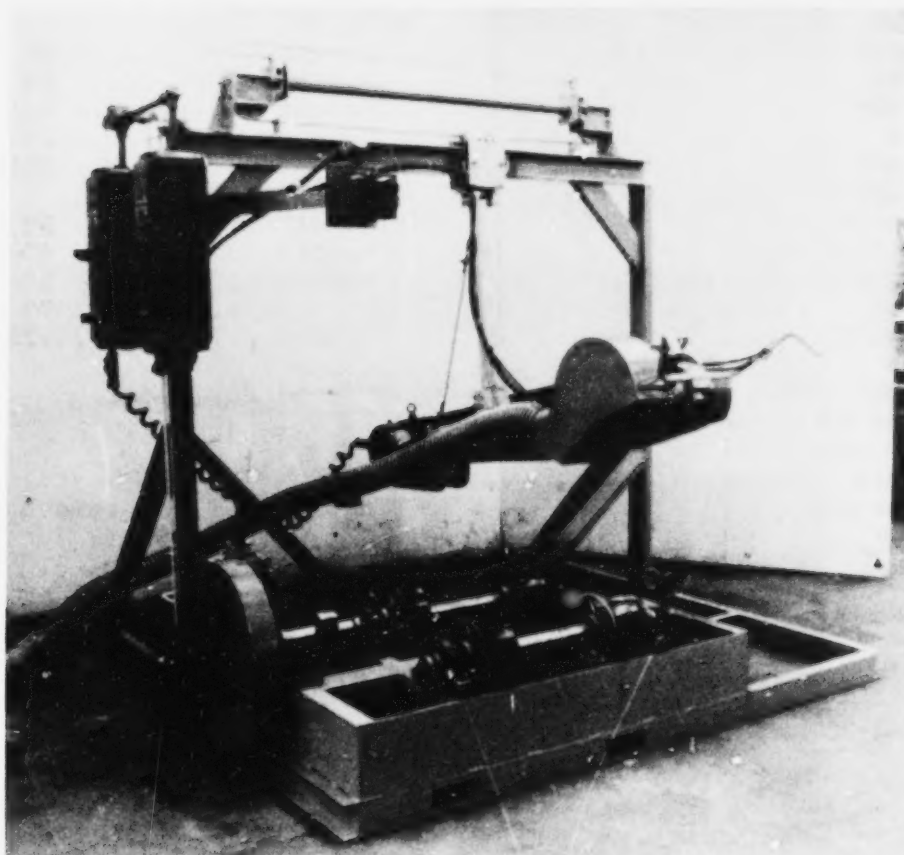


Figure 2-294.

Use:

The APE 7067 swing brush machine is used to clean and derust 16"/50 MK13, MK14, and MK8 Navy projectiles.

Description:

The machine consists of a base plate, four trunnion rollers, a support roller to cradle the pro-

jectile during cleaning and derusting processes, a Tol-o-matic cylinder to traverse the swing brush longitudinally along the projectile, and a dust collector system.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70670000

Unit of Issue Each

Installation Data:

Length 90 in.

Width 88 in.

Height 89 in.

Weight 2000 lbs

Utilities Required:

Compressed Air - 80 cfm @

100 psi. Electricity - 220

Volts 3 phase.

Production Capacity:

Depends on condition of item
being cleaned or de-rusted.

Shipping Data:

Length 96 in.

Width 92 in.

Height 96 in.

Cube 490 cu ft

Weight 2500 lbs

Associated Equipment:

None.

Kits:

1105E001 KIT, Dust Collector

APE 7068--RENOVATION TOOLING FOR NAVY GUN AMMUNITION

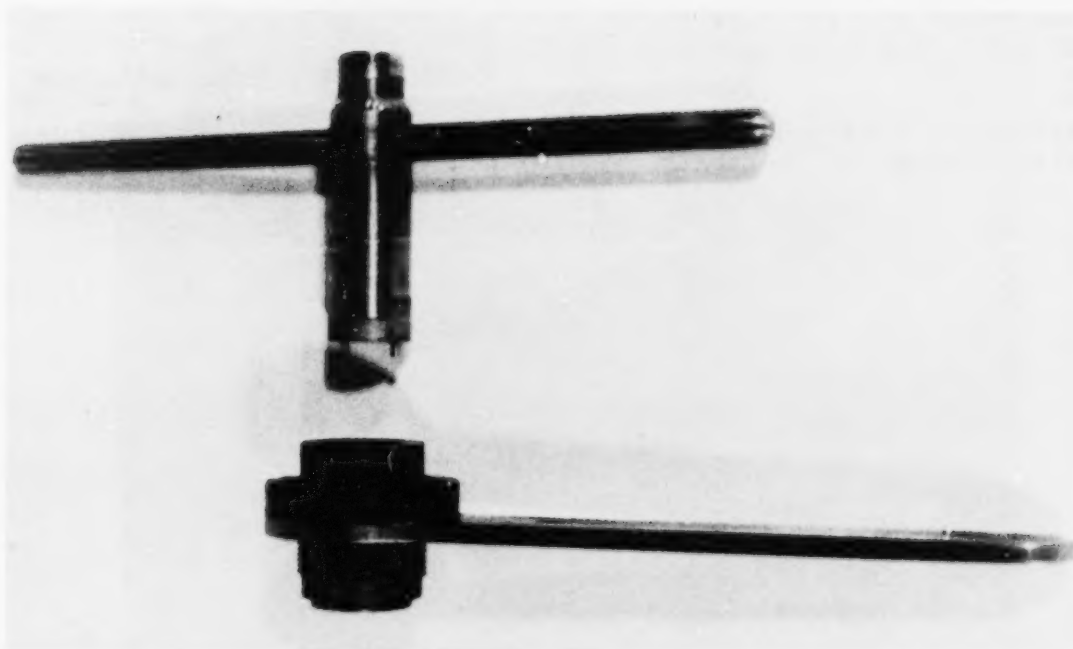


Figure 2-295.

Use:

The renovation tools are used to manually renovate Navy gun ammunition.

Description:

The equipment consists of twenty-one separate tooling items, required for use on renovation of

Navy gun ammunition. These tooling items are standardized as APE component assemblies to the APE 7068, but will not be issued as a complete end item.

Difference Between Models:
Original design.

Tabulated Data:
Not applicable.

Installation Data:
Not applicable.

Utilities Required:
Not applicable.

Production Capacity:
Not applicable.

Shipping Data:
Not applicable.

Associated Equipment:
None.

Assemblies:

7068 A001, Torque Wrench Adapter for Projectile Adapter
7068 A002, Thread Cleaning Pick
7068 A003, Nose Plug Vise Grip Plug
7068 A004, Staking Tool
7068 A005, Stake Removal Tool
7068 A006, Tracer Removal Tool
7068 A007, Projectile Adapter Wrench
7068 A008, Auxiliary Detonating Fuze Holder
7068 A009, Torque Wrench Adapter
7068 A010, Sealing Cup Removal Tool
7068 A011, Sealing Cup Removal Tool
7068 A012, Auxiliary Detonating Fuze Body Plug Wrench
7068 A013, Spanner Wrench
7068 A014, Fuze Wrench
7068 A015, Fuze and Dummy Nose Plug Wrench
7068 A016, Gas Check Seal Tool
7068 A017, Projectile Trunnion Band
7068 A018, Rotating Band Lipping Tool
7068 A019, Base Fuze Hole Cavity Reamer
7068 A020, Handling Sling
7068 A021, Torque Wrench Adapter
7068 A022, Heating Device, Windshield Disassembly

7068 A023, Holding Fixture, Projectile Adapter
7068 A024, Fixture, Paint Spinning
7068 A025, Wrench, MT/PD Fuze, and Adapter Holding Fixture
7068 A026, Wrenches, Auxiliary Fuze, Time Setting
7068 A027, Reserved for Future Use
7068 A028, Holding Fixture, Auxiliary Detonating Fuze
7068 A029, Fixture, Adapter Holding
7068 A030, Tool, Body Plug Removal
7068 A031, Adapter, Windshield Torque Wrench
7068 A032, Wrench, Windshield Removal
7068 A033, Adapter, Torque Wrench, Fuze and Dummy Nose Plug
7068 A034, Wrench, Cavity Liner, Removal
7068 A035, Wrenches, Base, Base Fuze Cover
7068 A036, Wrench, Cartridge Tank Lid Removal
7068 A037, Wrench, Spanner for WPPC MK4
7068 A038, Wrench, Windshield Spanner, 5"/38 Common
7068 A039, Wrench, Adapter
7068 A040, Wrench, Fuze Setting
7068 A041, Press tool, gas check seal
7068 A042, Reserved for future Use
7068 A043, Wrench, 5" Cartridge Tank Cover
7068 A044, Tools, Wad Removal
7068 A045, Spanner Wrench, Adjustable Pin
7068 A046, Tool, Rotating Band, Lipping
7068 A047, Wrench, Base Detonating Fuze (BDF)
7068 A048, Reserved for future use
7068 A049, Socket, Holding Ring Removal

Kits:
None

APE 7069--SCALE, PROJECTILE WEIGHING

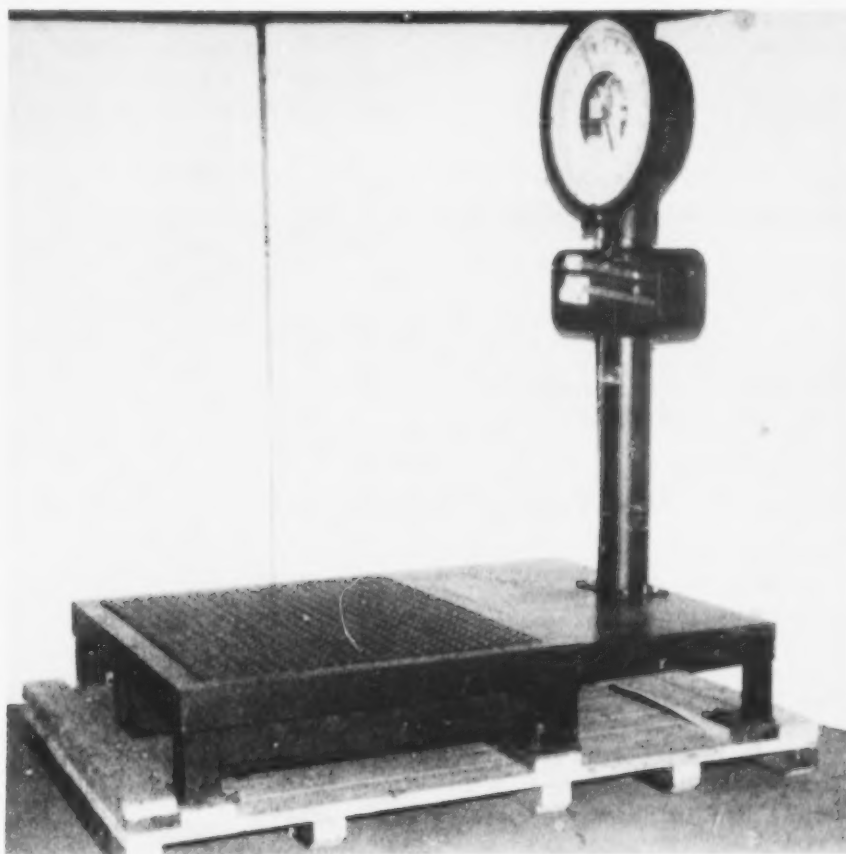


Figure 2-296.

Use:

The Projectile Weighing Scale is used to weigh renovated 16"/50 projectiles and other munitions to meet the accuracy requirements of the applicable DMWRs.

Description:

The projectile weighing scale is a commercial platform scale. The

scale has the capacity and tare functions needed to weigh items up to 4500 pounds. The dial indicates 0 to 2000 pounds. Use of the tare poise and capacity poise permits the scale to weigh up to the 4500 pound level.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70690000

Unit of Issue Each

Installation Data:

SCALE

Length 70 in.

Width 52-3/4 in.

Height 72-5/8 in.

Weight not available

SCALE MOUNTED ON PALLET

Length 93 in.

Width 59 in.

Height 78-1/2 in.

Weight 1432 lbs

Utilities Required:

None.

Production Capacity:

Not applicable.

Shipping Data:

Length 85 in.

Width 59 in.

Height 48 in.

Cube 139 cu ft

Weight 1827 lbs

Associated Equipment:

None.

Kits:

None.

APE 7070--VISE, 16"/50 PROJECTILE

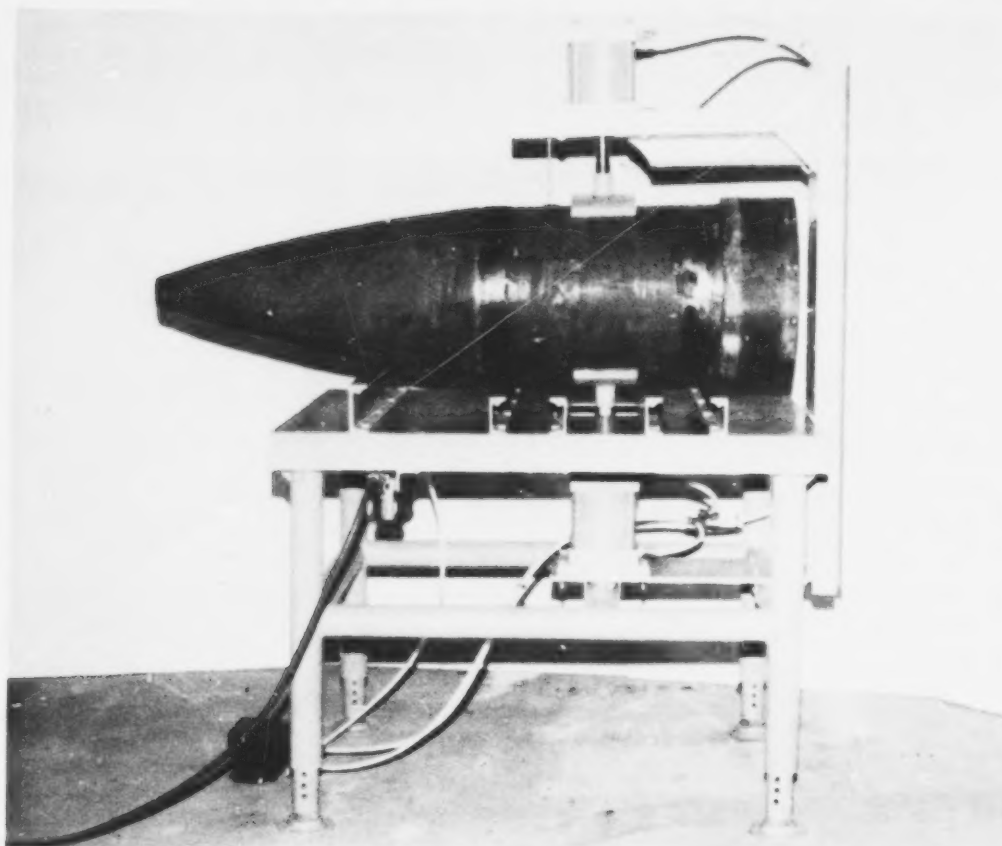


Figure 2-297.

Use:

The 16"/50 Projectile Vise is used to hold and restrain the movement of a 16"/50 projectile. The vise is used while applying the torque required to seat the adapter sub-assembly (adapter and auxiliary detonating fuze) to the projectile nose container.

Description:

The vise consists of a table, two vise jaws and a vise jaw support.

Guide rails on the aluminum table top are used to roll the projectile into position in the jaws and then to roll the projectile from the vise table. The upper and lower jaws are operated by two air cylinders activated by a foot air valve. The upper jaw support can be lowered for use with the accessory, E001.

Differences Between Models:
Original design.

Tabulated Data:

APE No. 70700000
 Unit of Issue Each
 Installation Data:
 Length 50 in.
 Width 36 in.
 Height 78 in.
 Weight 790 lbs
 Utilities Required:
 Air at 100 psi.
 Production Capacity:
 Not applicable.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

7070E001 KIT, 8 Inch Projectile

APE 7071--PRESS, GAS CHECK SEAL, 16"/50 PROJECTILE BASE FUZE

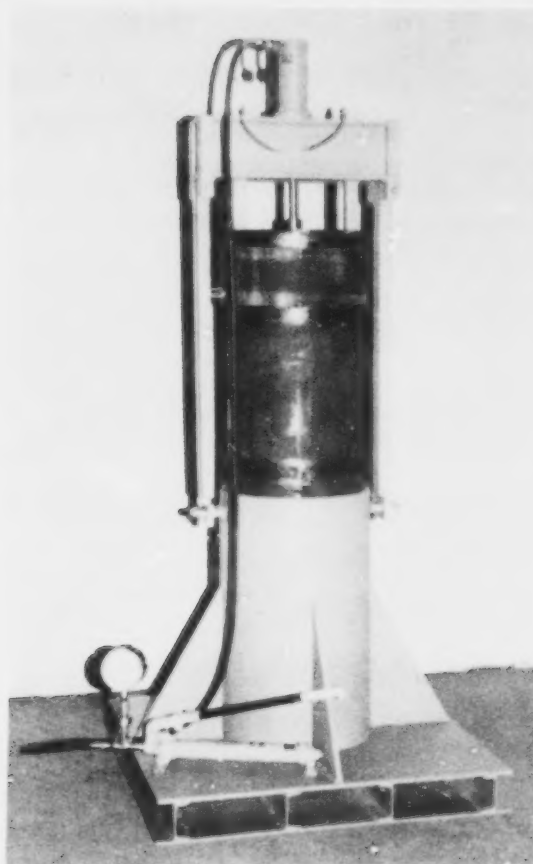


Figure 2-298.

Use:

The 16"/50 Projectile Base Fuze Gas Check Seal Press is used to press a gas check seal into the gas check groove on the base end of a 16"/50 H.C. projectile.

Description:

The gas check seal press consists of a base that accommodates the nose end of the projectile; a

press frame that sits on the base of the projectile and supports the gas check tool; two legs that provide the distance needed to mount the press frame above the projectile; and a hydraulic hand pump and hydraulic cylinder for operation of the press.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70710000
 Unit of Issue Each
 Installation Data:
 Length 40 in.
 Width 40 in.
 Height 99 in.
 Weight 1462 lbs
 Utilities Required:
 None.
 Production Capacity:
 Not applicable.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:

None.

Kits:

7071E001 KIT, 16"/50 A.P. Pro-
 jectile Gas Check Seal
 Press

APE 7072--CARRIER, 16"/50 PROJECTILE, HC & AP



Figure 2-299.

Use:

The 16"/50 Projectile Carrier is used to carry a 16"/50 H.C. & A.P. projectile in a vertical or horizontal position. The carrier is secured around the projectile and suspended from an appropriately load tested lifting device.

Description:

The projectile carrier consists of the yoke assembly that encircles

and holds the projectile. The yoke and projectile are lifted by attachment of a lifting device to either the horizontal lifting eye on the yoke or the wire rope vertical lifting assembly that attaches to the yoke.

Difference Between Models:
Original design.

Tabulated Data:

APE No. 70720000
 Unit of Issue Each
 Installation Data:
 Length 17-1/2 in.
 Width 22 in.
 Height 78 in.
 Weight 136 lbs
 Utilities Required:
 None.
 Production Capacity:
 Not applicable.

Shipping Data:

Length not available
 Width not available
 Height not available
 Cube not available
 Weight not available

Associated Equipment:
 None.

Kits:

7072E001 KIT, 16"/50 A. P. Pro-
 jectile Carrier

APE 7073--PROPELLANT SETTling DEVICE

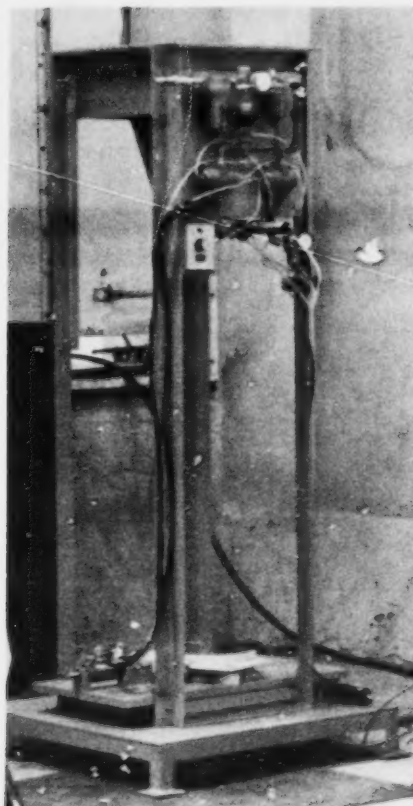


Figure 2-300.

Use:

The propellant settling device is designed to settle propellants to the correct (PPD) production packing depth for Navy cartridge cases:

76MM/62 Cal.
3"/50 Cal.
5"/38 Cal.
5"/54 Cal.
6"/47 Cal.
8"/55 Cal.

Designed for assembly line operations, but capable of filling a single cartridge case without difficulty. The device is pneu-

matically operated creating no explosive problems when operated in an explosive dust environment.

Description:

The device is seven feet tall, consisting of a propellant hopper that can be raised and lowered. A jaw and shoe assembly holds the cartridge case in place during filling operations. A timer located on the frame of the device controls the length of time each cartridge case is vibrated to settle the propellant.

Tabulated Data:

APE No. 7073
 Unit of Issue Ea.
 Installation Data:
 Length - Base - 37 1/2 in.
 Width - Base - 37 1/2 in.
 Height - 96" with hopper
 attached (minimum)
 Occupied Floor Space:
 63 cu. ft.
 Production Rate:
 200 ctg. cases per hour

Shipping Data:

Length Not available
 Width Not available
 Height Not available
 Cube Not available
 Weight Not available

Associated Equipment:

Air compressor
 Conveyor

Kits:

APE 7073E001 for 5"/38 and
 5"/54 ctg. cases
 APE 7073E002 for 6"/47 ctg. cases
 APE 7073E003 for 76MM case
 APE 7073E004 for 3"/50 ctg. case

Other:

The jaw/shoe assembly for the
 8"/55 ctg. case is not a kit, but
 a basic part of the machine to
 which the other kits can be
 attached.

APE 7074--FIXTURE, CONTINUITY TEST 5" ZUNI ROCKET MOTOR

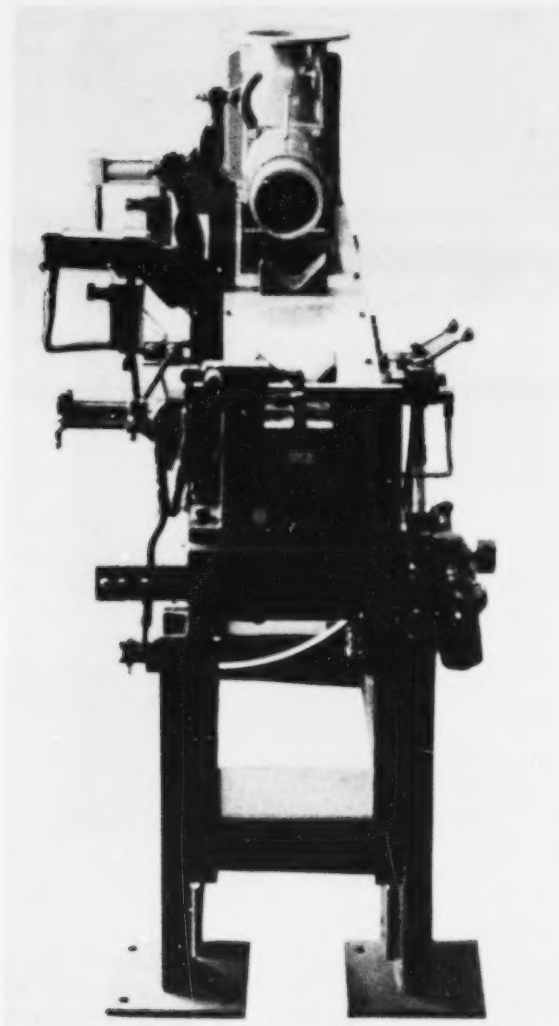


Figure 2-301.

Use:

The continuity test fixture is used to check the continuity of 5" Zuni rocket motors. The continuity testing is done remotely from behind a substantial dividing wall.

Description:

The fixture consists of the machine frame, two clamping cy-

linders and clamping fixtures, rocket motor positioning fixture, two hydraulic reservoirs, continuity test probes and cylinder, remote control panel w/continuity tester, exhaust fixture and pneumatic controls.

Difference Between Models:

Original Design

Tabulated Data:

APE No. 7074
 Unit of Issue Each
 Installation Data:
 Length 117 in.
 Width 12 in.
 Height 25 in. (min.)
 Cube 20.3 cu. ft.
 Weight 900 lbs

Utilities Required:

Air at 60 psi
 Production Capacity:
 Not applicable
 Associated Equipment:
 None

Kits:
 None

Shipping Data:

Length Not available
 Width Not available
 Height Not available
 Cube Not available
 Weight Not available

CHAPTER 3

NONSTANDARD AMMUNITION PECULIAR EQUIPMENT

Nonstandard APE are approved, locally designed and fabricated tools, jigs and fixtures used to supplement standard APE in ammunition operations.

Section I. NONSTANDARD APE LISTING

This listing includes the nonstandard APE in sequence according to the designated ammunition item and component that it supports. The listing also includes the assigned non-standard APE number, nomenclature, description or purpose, and the drawing photo or sketch numbers of the installation designing the item.

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1305 Small Arms Ammunition thru 30mm Component - Complete Round or Item	0223	<u>FIXTURE, DEMILITARIZATION -</u> remote control, air operated fixture used to demil ctg 30mm T.P. Operation is viewed by use of mirrors.	Savanna Depot Activity AMXSV-7512A
	0258	<u>TRASH SEPARATOR -</u> used to separate trash from small arms ammunition field returns	Red River Army Depot AMXRR - 6712F
	0538	<u>PULL APART ATTACHMENT, CTG</u> <u>30MM GAU 9/A -</u> used in con- junction with APE 1001M1 vertical pull apart machine to pull apart 30mm ctg for reclamation of the propel- lant for air force use	Anniston Army Depot ANAD 0538
FSC 1305 Small Arms Ammo thru 30mm Compo- nent - Work Tables, Benches, Etc	0552	<u>TABLE, SMALL ARMS AMMUNI-</u> <u>TION PULL TEST -</u> used to pull test belted 7.62mm small arms ammunition	McAlester Army Ammunition Plant McAlester Dwg D-1917

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1305 Small Arms Ammunition thru 30mm Component - Links, Belt, Clips	0086	<u>TABLE, PULL TEST</u> - used to perform pull testing of linked metallic belts of various small arms ammuni- tion	Naval Ammunition Production Engr Center NAPEC SK-466
	0143	<u>EXTRACTOR, LINKED BELT</u> - used to break continuous linked metallic belts of cal .30 ammunition into proper lengths	Letterkenny Army Depot AMXLE-6905A
	0144	<u>EXTRACTOR, LINKED BELT</u> - used to break continuous linked metallic belts of cal .50 ammunition into proper lengths	Letterkenny Army Depot AMXLE-6905B
	0157	<u>PACKING TEMPLATE</u> - used to arrange cal .30 ammo (link- ed) in proper orientation for packing in ammo box	Letterkenny Army Depot AMXLE-7008A
	0412	<u>DELINKER, SINGLE ROUND</u> - used for removing a cal .50 round from linked belts of cal .50 in M15A2 links	Red River Army Depot AMXRR-6704E
	0438	<u>ROUND COUNTER, CAL .50 IN M2 LINKS</u> - used to assure that 100 rds of cal .50 ammo are in a linked unit for packing	Red River Army Depot AMXRR-6903A Local Dwg 1010153
	0439	<u>ROUND COUNTER, CAL .50 IN M15A2 LINKS</u> - used to assure that exactly 90 rds of cal .50 ammo are in a linked unit for packing	Red River Army Depot AMXRR-6903B Local Dwg 1010152
	0442	<u>DECLIPING ATTACHMENT, CTG 7.62MM</u> - augments APE 1114 machine to declip 7.62MM ammunition	McAlester Army Ammunition Plant McAlester Dwg

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1305 Small Arms Ammunition thru 30mm Component - Links, Belt, Clips -- Continued	0448	<u>TABLE, PULL TEST</u> - used to perform pull testing of linked metallic belts of various small arms ammunition	Red River Army Depot SDSRR-7801A
	0454	<u>MACHINE, LINK FEED</u> - used in conjunction with APE 1259 or 1114 to expedite feeding of links for ctg 7.62MM	Umatilla Depot Activity AMXMU-7203A
	0520	<u>LINKER, HAND, SINGLE ROUND, CAL .50</u> - used to link individual rounds of cal .50 in M9 links	Savanna Depot Activity AMXSV-6704B
	0605	<u>LINKER-DELINKER, 25MM W/M28 LINK HAND</u> - used to link-delink 25mm cartridges	AMCCOM 28620
FSC 1305 Small Arms Ammo thru 30mm Component - Metal & Wood Containers	0220	<u>TOOL, TEAR STRIP REMOVAL</u> - used with any drill to engage and remove the tear strip from hermetically sealed metal cans (small arms cans, fuze cans, etc.)	Savanna Depot Activity AMXSV-7112A (Local sketch) SK-160)
	0336	<u>ADAPTER, AIR DRILL</u> - used to remove wing nuts from small arms packing cases	Sierra Army Depot AMXSI-7104C
	0337	<u>ADAPTER, AIR DRILL</u> - engages tear strip on metal container and is turned by air drill to remove the strip on SAA containers	Sierra Army Depot AMXSI-7104D
	0338	<u>TOOL, HAND, TERNE PLATE LINER REMOVAL</u> - used to remove terne plate liner lids by hand methods	Sierra Army Depot AMXSI-7104E

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1305 Small Arms Ammo thru 30mm Compo- nent - Metal & Wood Con- tainers -- Continued	0493	<u>TOOL, TERNE PLATE LINER</u> - used to open terne plate liners in M1917 boxes	Seneca Army Depot AMXSE-7208A
FSC 1305 Small Arms Ammo thru 30mm Compo- nent - Work Tables, Benches, Etc	0552	<u>TABLE, SMALL ARMS AMMUNITION PULL TEST</u> - used to pull test belted 7.62mm small arms ammunition	McAlester Army Ammunition Plant McAlester Dwg D-1917
FSC 1310 Ammunition 30mm to 75mm Component - Complete round or item	0217	<u>MACHINE, PULL APART, HORI- ZONTAL</u> - a barricaded hori- zontal pull apart machine for fixed artillery ammunition. This machine is replaced by standard APE 1001M1 or 2000 machines which are vertical orientation.	Savanna Depot Activity AMXSV-7002B
	0244	<u>EQUIPMENT, DISASSY, REMOTE CONTROL</u> - used to disassemble fuzes and tracers from pro- jectiles, plugs from bombs, rocket heads, etc (single spindle machine similar to APE 1002M2)	Red River Army Depot AMXRR-7104A
	0247	<u>ADAPTER, CONVEYOR (MONORAIL) HANGER</u> - used to adapt vari- ous type hangers to the APE 1044 monorail conveyor	Red River Army Depot AMXRR-6711E
	0255	<u>MACHINE, PROJECTILE STEN- CILING</u> - similar to APE 1175 for marking projec- tiles	Red River Army Depot AMXRR-6712C

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1310 Ammunition 30mm to 75mm Component - Complete round of item -- Continued	0275	<u>TORQUE ADAPTER, PROJECTILE TO CTG CASE ASSY, 57MM</u> - used to check the torque on the crimp of the projec- tile to ctg case assembly on 57mm cartridges	Red River Army Depot AMXRR-6805G
	0440	<u>EXTRACTOR, PROFILE & ALIGN- MENT GAGE</u> - used to extract stuck 40mm complete rounds from the chamber gage	Red River Army Depot AMXRR-6904A Local Dwg 1050872
FSC 1310 Ammunition 30mm to 75mm Component - Cartridge case & liners	0201	<u>TOOL, PLASTIC LINER REMOVAL</u> - used to remove the plastic liner from 57mm ctg cases	Lexington-Blue Grass Depot Activity AMXLX-7303E
	0203	<u>FIXTURE, PLASTIC LINER INSTALLATION</u> - used to in- stall the plastic liner in the 57mm ctg cases	Lexington-Blue Grass Depot Activity AMXLX-7202G
	0221	<u>PUNCH, CTG CASE MUTILATION</u> - used in conjunction with APE 1042 to mutilate empty and deprimed ctg cases	Savanna Depot Activity AMXSV-7304A Local Dwg SK-188
	0270	<u>TOOL, PLASTIC LINER INSER- TION</u> - used to install the plastic liner in the 57mm ctg case	Red River Army Depot AMXRR-6805A
	0308	<u>HOLDING JAW, CTG CASE MUTI- LATION</u> - used to hold 30mm thru 125mm cartridge cases for mutilation in APE 1002M2 machine	Sierra Army Depot AMXSI-7212B
	0544	<u>PRESS, DEPRIME, CTG CASE</u> - used to deprime fired primers from cases returned from posts, camps (forts), and stations. Cases may be dirty, rusty, or mutilated and obligated for salvage only	Red River Army Depot (photograph only)

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1310 Ammunition 30mm to 75mm Component - Primers	0028	<u>WRENCH, PRIMER REMOVAL</u> - used to remove M32, M34, and M71 primers from 60mm and 81mm mortars	Naval Ammunition Production Engr Center WPEC Dwg 2253
	0165	<u>DEVICE, PRIMER REMOVAL</u> - used to remove tight primers from the 57mm M90A1 fuze	Letterkenny Army Depot AMXLE-7107B Local Dwg A-70499
	0259	<u>PRIMER PROTECTOR, 40MM</u> - used to protect primers on 40mm clipped ammunition	Red River Army Depot AMXRR-6801A
	0281	<u>PRIMER PROTECTOR, 40MM</u> - used to protect primers on 40mm clipped (M1 clip) ammunition	Red River Army Depot AMXRR-6810A
	0286	<u>PRIMER PROTECTOR, 57MM</u> - used to protect primers on 57mm M30A1B1 ctg cases while round is in an unpacked configuration	Red River Army Depot AMXRR-6811A
	0384	<u>PIN WRENCH, MORTAR PRIMER</u> - used to prime <u>live</u> and de- prime <u>fired</u> primers on 60mm and 81mm mortars	Red River Army Depot AMXRR-SA-6701H Local Dwg 1020534
	0447	<u>PRESS, CTG CASE DEPRIME</u> <u>(SALVAGED CASES)</u> - used for depriming salvaged cartridge cases returned from overseas (fired primers only)	Red River Army Depot DRXRR-7702A
	0544	<u>PRESS, DEPRIME, CTG CASE</u> - used to deprime fired primers from cases returned from posts, camps (forts), and stations. Cases may be dirty, rusty, or mutilated and obligated for salvage only	Red River Army Depot (photograph only)

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
<u>FSC 1310</u>			
Ammunition 30mm to 75mm Component - Primers -- Continued	0582	<u>COVER, PRIMER PROTECTOR</u> - used to protect primer on ctg case base when in an unpacked condition NAPEC 1438	Naval Ammunition Production Engineering Center
<u>FSC 1310</u>			
Ammunition 30mm to 75mm Component - Fuzes	0151	<u>WISE, PNEUMATIC W/MOTOR</u> - used for remote control de- boosting of 60mm and 81mm mortar fuzes	Savanna Depot Activity AMXSV-6804A
	0165	<u>DEVICE, PRIMER REMOVAL</u> - used to remove tight primers from the 57mm M90A1 fuze	Letterkenny Army Depot AMXLE-7107B Local Dwg A-70499
	0173	<u>THREAD DIE, FUZE THREAD CLEANING</u> - used for cleaning fuze threads on M52 series fuzes for 60mm & 81mm mortar	Letterkenny Army Depot AMXLE-7003D Local Dwg A-70399
	0174	<u>THREAD DIE, FUZE THREAD CLEANING</u> - used for cleaning fuze threads on fuze, PD, M51, M500 series, and M557	Letterkenny Army Depot AMXLE-7003E Local Dwg A-70404
	0254	<u>HANGER, MONORAIL CONVEYOR, FUZED PROJECTILES</u> - used to suspend 57mm thru 106mm fuzed projectiles from a monorail conveyor	Red River Army Depot AMXRR-6712B
	0358	<u>WRENCHED, FUZE REMOVAL</u> - used for the removal of M500 series fuzes from various projectiles	Lexington-Blue Grass Depot Activity AMXLX-AP-2-6702B Local Dwg LBAD 9-145
	0476	<u>BARRICADE</u> - used for trans- porting reject 40mm rounds with partially armed fuzes to disposal site	Anniston Army Depot AMXAN-6804A Local Dwg E-33-65

TM 43-0001-47

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1310 Ammunition 30mm to 75mm Component - Fuzes -- Continued	0595	<u>WRENCH, FUZE</u> - used to assemble, torque and disassemble fuzes from mortar rounds	Naval Ammunition Production Engineering Center NAPEC 0440
FSC 1310 Ammunition 30mm to 75mm Component - Fin & Fin Kits	0207	<u>THREAD CHASER, FIN THREADS</u> - used to chase the internal threads on 60mm mortar fins	Red River Army Depot AMXRR-6701T
	0381	<u>WRENCH, FIN REMOVAL</u> - used to remove fins from 60mm mortar rounds	Red River Army Depot AMXRR-6701D Local Dwg RRAD 1010136
	0516	<u>TOOL, FIN REMOVAL & ASSEMBLY</u> - used to remove and assemble to M2 fin to the 60mm mortar rounds	Letterkenny Army Depot AMXLE-7106A
FSC 1310 Ammunition 30mm to 75mm Component - Projectiles	0274	<u>HOLDING FIXTURE, FUZED PROJECTILE 57MM</u> - used to hold a fuze 57mm projectile in a horizontal position for drilling stakes between fuze and projectile	Red River Army Depot AMXRR-6805F
	0310	<u>DRILL, AIR, THREAD CLEANING</u> - used with an adapter for a bronze wire brush to clean threads in various size	Seneca Army Depot AMXSE-6803I
	0319	<u>THREAD CHASER, PROJECTILE FUZE THREADS</u> - used to chase threads in nose fuzewell by hand operation for projec- tiles 57mm thru 106mm	Sierra Army Depot AMXSI-6902A
	0481	<u>BUFFING MACHINE, PROJECTILES 57MM THRU 106MM</u> - used for powered brush cleaning of projectiles and other com- ponents	Anniston Army Depot SDSAN-7709A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1310 Ammunition 30mm to 75mm Component - Propellant & Holders	0335	<u>CABINET, ARTILLERY PROPELLANT COLLECTION</u> - used on collec- tion of artillery propellant in lieu of APE 1028	Sierra Army Depot AMXSI-7104B
FSC 1310 Ammunition 30mm to 75mm Component - Fuze well and Liner	0331	<u>DIAL DEPTH GAGE - FUZEWELL</u> - used to gage the depth of cavities in rounds which have been deep drilled	Sierra Army Depot AMXSI-7009B
	0422	<u>WRENCH, FUZEWELL LINER (POWERED)</u> - used for inser- tion and removal of fuze- well liners	Red River Army Depot AMXRR-6710B
	0537	<u>FIXTURE, FUZEWELL LINER REMOVAL</u> - used to remove fuzewell liners from projec- tiles that cannot be removed using APE 1128 or 1140	Lexington-Blue Grass Depot Activity SDSLX-7708A
FSC 1310 Ammunition 30mm to 75mm Component - Supplementary Charge	0152	<u>TOOL, SUPPLEMENTARY CHARGE REMOVAL DEEP CAVITY SHELLS</u> - used to remove paper lined supplementary charges from all deep cavity shells	Savanna Depot Activity AMXSV-6805A (Dwg ORDJ-115)
FSC 1310 Ammunition 30mm to 75mm Component - Safety Clips	0582	<u>COVER, PRIMER PROTECTOR</u> - used to protect primer on ctg case base when in an unpacked condition	Naval Ammunition Production Engineering Center NAPEC 1438
FSC 1310 Ammunition 30mm to 75mm Component - Boosters	0151	<u>WISE, PNEUMATIC W/MOTOR</u> - used for remote control deboosting of 60mm and 81mm mortar fuzes	Savanna Depot Activity AMSV-6804A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1310 Ammunition 30mm to 75mm Component - Boosters --Continued	0380	<u>DEBOOSTERING MACHINE, FUZE</u> - used on fuzes that are diffi- cult to deboost in APE 1118 (mortar fuzes 60mm and 81mm)	Red River Army Depot AMXRR-6701C
FSC 1310 Ammunition 30mm to 75mm Component - Percussion Primers	0582	<u>COVER, PRIMER PROTECTOR</u> - used to protect primer on ctg case base when in an unpacked condition	Naval Ammunition Production Engineering Center NAPEC 1438
FSC 1310 Ammunition 30mm to 75mm Component - Fiber & Plastic Con- tainers	0149	<u>LID PULLER, FIBER CONTAINERS,</u> <u>ARTILLERY AMMUNITION</u> - modi- fication kit to APE 1003 to pull a single lid	Savanna Depot Activity AMXSV-6705A
	0155	<u>DEVICE, PAINTING, FIBER</u> <u>CONTAINER CHEMICAL AMMUNI-</u> <u>TION</u> -used for painting chemical stripes on M253 fiber containers	Letterkenny Army Depot AMXLE-7007G
	0178	<u>KNIFE, TAPE CUTTING</u> - knife with a disc guard used to cut the sealing tape on fiber container end cap to body joint	Lexington-Blue Grass Depot Activity AMXLX-6705B Local Dwg LBAD9-147
	0238	<u>TURNTABLE, AIR POWERED,</u> <u>FIBER CONTAINER PAINTING</u> - used to rotate fiber con- tainers for ease in painting. Used on cntrs model M201A1, M263, M251, M171A1, M202A1 M166A2, M105A2, M451	Red River Army Depot AMXRR-6708J
	0266	<u>HANGER, PAINT FOR FIBER</u> <u>CONTAINERS</u> - used to hold fiber container on monorail conveyor or a suspended hook for painting	Red River Army Depot AMXRR-6802G

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1310 Ammunition 30mm to 75mm Component - Fiber & Plastic Con- tainers -- Continued	0267	<u>TIMER, TAPING MACHINE</u> - used w/APE 1004 (basic) to deter- mine speed of taping machine head to allow an increase or decrease of speed	Red River Army Depot AMXRR-6803A
	0312	<u>TAPING MACHINE, HAND OPERA- TED</u> - used for sealing fiber containers 57mm thru 106mm with acetate tape	Seneca Army Depot AMXSE-6803H
	0340	<u>TOOL, CTG REMOVAL, SWELLED FIBER CONTAINERS</u> - hand tool that fits over cartridge case head enabling operator to pull round from container	Sierra Army AMXSI-7112A
FSC 1310 Ammunition 30mm to 75mm Component - Metal & Wooden Con- tainers	0220	<u>TOOL, TEAR STRIP REMOVAL</u> - used with any drill to en- gage and remove the tear strip from hermetically sealed metal cans (small arms cans, fuze cans, etc)	Savanna Depot Activity AMXSV-7112A (local sketch SK-160
FSC 1310 Ammunition 30mm to 75mm Components - Slings, Hangers, Restraining Devices	0482	<u>JIG, HANDLING</u> - used for hanging fuze projectiles (various calibers) on an overhead conveyor	Anniston Army Depot SDSAN-7801A
FSC 1310 AMMUNITION 30mm to 75mm Component - Tracers	0581	<u>WRENCH, HAND, NOSE PLUG AND TRACER</u> - used to remove the nose plug or tracer from 40mm projectile	Naval Ammunition Production Engineering Center NAPEC 1443-2

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1310 AMMUNITION 30mm to 75mm Component - Dummy Nose Plug, Nose Plug or Closing Plug	0581	<u>WRENCH, HAND, NOSE PLUG AND TRACER</u> - used to remove the nose plug or tracer from 40mm projectile	Naval Ammunition Production Engineering Center NAPEC 1443-2
FSC 1310 Ammunition 30mm to 75mm Component - Chamber Gage	0176	<u>TOOL, REMOVAL</u> - used to re- move misaligned 60mm mortar rounds from the chamber gage	Lexington-Blue Grass Depot Activity AMXLX-6705A Local Dwg LBAD9-149
	0280	<u>FIXTURE, P&A GAGE EXTRACTOR, 57MM</u> - holds gage and ex- tracts the 57mm ctg from the gage	Red River Army Depot AMXRR-6809A
	0290	<u>FIXTURE, P&A GAGE EXTRACTOR, 40MM</u> - holds gage and ex- tracts the 40mm ctg from the gage	Red River Army Depot AMXRR-6903C
	0295	<u>FIXTURE, P&A GAGE EXTRACTOR, 40MM</u> - removes stuck rounds from the 40mm P&A gage	Red River Army Depot AMXRR-7109A
	0409	<u>EXTRACTOR, CHAMBER GAGE, ARTILLERY PROJECTILES</u> - used to remove cartridges from the chamber gage after gaging is complete	Red River Army Depot AMXRR-6701AM
FSC 1310 Ammunition 30mm to 75mm Components - Mortar Primers	0028	<u>WRENCH, PRIMER REMOVAL</u> - used to remove M32, M34 and M71 primers from 60mm and 81mm mortars	Naval Ammunition Production Engineering Center WPEC Dwg 2253
	0378	<u>HOLDING FIXTURES, MORTAR PRIMER</u> - used for disassembly of 60mm mortar primer assem- bly	Red River Army Depot AMXRR-SA-6701A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1310 Ammunition 30mm to 75mm Component - Mortar Primers -- Continued	0384	<u>PIN WRENCH, MORTAR</u> - used for priming live and deprim- ing fired mortar primers	Red River Army Depot AMXRR-SA-6701H Local Dwg 1020534
FSC 1310 Ammunition 30mm to 75mm Component - Fuze Pull Cords, Mortar Fuzes	0190	<u>TOOL, CRIMPING, MORTAR FUZE PULL CORD</u> - used to crimp the pull cord on 60mm and 81mm (M52A2) mortar fuzes	Letterkenny Army Depot AMXLE-7003C
	0206	<u>TOOL, CRIMPING, MORTAR FUZE PULL CORD</u> - used to crimp the pull cord on 60mm and 81mm (M52A2) mortar fuzes	Red River Army Depot AMXRR-6701Q
FSC 1310 Ammunition 30mm to 75mm Component - Rotating Bands	0317	<u>MACHINE, ROTATING BAND CLEAN- ING & TAPING</u> - removes corro- sion and tapes rotating band on 37mm thru 8 inch projec- tiles prior to painting	Sierra Army Depot AMXSI-6811C
FSC 1315 Ammunition 75mm to 125mm Componenet - Complete Round or Item	0217	<u>MACHINE, PULL APART, HORI- ZONTAL</u> - a barricaded hori- zontal pull apart machine for fixed artillery ammunition. This machine is replaced by standard APE 1001M1 or 2000 Machines which are vertical orientation	Savanna Depot Activity AMXSV-7002B
	0244	<u>EQUIPMENT, DIASSY, REMOTE CONTROL</u> - used to disassemble fuzes and tracers from pro- jectiles, plugs from bombs, rocket heads, ets. (single spindle machine similar to APE 1002M2.)	Red River Army Depot AMXRR-7107A
	0246	<u>HANGER, PAINTING</u> - used to suspend the 81mm practice mortar for painting purposes	Red River Army Depot AMXRR-6711D

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Complete Round or Item -- Continued	0247	<u>ADAPTER, CONVEYOR (MONORAIL) HANGER</u> - used to adapt vari- ous type hangers to the APE 1044 monorail conveyor	Red River Army Depot AMXRR-6711E
	0255	<u>MACHINE, PROJECTILE STENCIL- ING</u> - similar to APE 1175 for marking projectiles	Red River Army Depot AMXRR-6712C
	0366	<u>MACHINE, BASE-PLUG TORQUE</u> - used to torque base plugs of projectile 105mm M84A1	Lexington-Blue Grass Depot Activity SDSLX-7807A
FSC 1315 Ammunition 75mm to 125mm Component - Cartridge Case & Liners	0018	<u>COVER, PRIMER PROTECTION, 3"/50 CTG CASES</u> - used for primer protection of 3"/50 propelling charge when in an unpacked configuration	Naval Ammunition Production Engineering Center NAPEC Dwg 0409
	0126	<u>FIXTURE, LOADING PLUG REMOVAL, 106MM M344A1 CTG</u> - used to remove the loading plug from ctg case base of the M93, M93B1 and M94B1 cartridge cases	Anniston Army Depot AMXAN-7303A
	0135	<u>TOOL, LINER INSERTION, CTG 106MM HEP-T M346</u> - used to assemble spacer, inner & outer liner, to seat ctg case liners and to hold speed nut while primer is being assembled into ctg case	Lexington-Blue Grass Depot Activity AMXLX-7407A Local Dwg LBAD 9-153
	0141	<u>PULLER, PLASTIC LINERS, CTG 75MM</u> - used for pulling plas- tic liners from the 75mm ctg cases	Savanna Depot Activity AMXSV-7005A
	0221	<u>PUNCH, CTG CASE MUTILATION</u> - used in conjunction with APE 1042 to mutilate empty and deprimed ctg cases	Savanna Depot Activity AMXSV-7304A Local Dwg SK-188

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Components - Cartridge Case & Liners -- Continued	0308	HOLDING JAW, CTG CASE MUTI- LATION - used to hold 30mm thru 125mm ctg cases for mutilation in APE 1002M2 machine	Sierra Army Depot AMXSI-7212B
	0488	PUNCH, PRIMER, 105MM M148A1 CTG CASE - used to punch out the large fired screw type primers	Seneca Army Depot AMXSE-6808A
	0544	PRESS, DEPRIME, CTG CASE - used to deprime fired primers from cases returned from posts, camps (forts), stations. Cases may be dirty, rusty, or mutilated and obli- gated for salvage only.	Red River Army Depot (photograph only)
FSC 1315 Ammunition 75mm to 125mm Component - Primers	0017	PRIMER PROTECTOR, 81MM MORTAR (EXCEPT ILLUMINATING) - pro- tects mortar primers during maintenance operations	Naval Ammunition Production Engineering Center NAPEC Dwg 0386
	0018	COVER, PRIMER PROTECTION, 3"/50 CTG CASES - used for primer protection of 3"/50 propelling charge when in an unpacked configuration	Naval Ammunition Production Engineering Center NAPEC Dwg 0409
	0025	CHUCK, TABLE TOP - used to hold 81mm M374, M375 while removing primer	Naval Ammunition Production Engineering Center WPEC Dwg 2307
	0028	WRENCH, PRIMER REMOVAL - used to remove M32, M34 and M71 primers from 60mm and 81mm mortars	Naval Ammunition Production Engineering Center WPEC Dwg 2253

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Primers -- Continued	0033	<u>COVER, PRIMER PROTECTION, 105MM CTG CASES</u> - used to protect primer on 105mm ctg cases when items are in an unpacked configuration	Crane Army Ammu- nition Activity NAD Crane Dwg 7260
	0110	<u>COVER, PRIMER PROTECTION, 76MM/62 CAL CARTRIDGE</u> - used to protect primer whenever ctg is in an unpacked con- figuration	Crane Army Ammu- nition Activity CAAA Dwg 7722
	0136	<u>TOOL, SPEED NUT SEATING</u> - used to seat speed nut inside ctg case of 106mm HEP-T M346 round after priming is com- pleted	Lexington-Blue Grass Depot Activity AMXLX-7407B Local Dwg LBDA 9-152
	0332	<u>ADAPTER, PRIMER TORQUE TEST</u> - used with an approved torque wrench for testing M58 pri- mer torque in 90mm ctg cases	Sierra Army AMXSI-7010A
	0384	<u>PIN WRENCH, MORTAR PRIMER</u> - used to prime <u>live</u> and de- prime <u>fired</u> primers on 60mm and 81mm mortars	Red River Army Depot AMXRR-SA-6701H Local Dwg 1020534
	0385	<u>CHAMBER, FIRING, 81MM MORTAR PRIMER</u> - a deactivation cham- ber to fire mortar primers prior to deprime operation	Red River Army Depot AMXRR-6701I Local Dwg 10500784
	0410	<u>NEST, HOLDING, 81MM MORTAR PRIMER</u> - used to hold the 81mm M57A1 mortar while re- moving primer from the M4A1 fin	Red River Army Depot AMXRR-6704C
	0447	<u>PRESS, CTG CASE DEPRIME (SAL- VAGED CASES)</u> - used for de- priming salvaged cartridge cases returned from overseas (fired primers only)	Red River Army Depot DRXRR-7702A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Primers -- Continued	0488	<u>PUNCH, PRIMER, 105MM M148A1</u> CTG CASE - used to punch out the large fired screw type primers	Seneca Army Depot AMXSE-6808A
	0544	<u>PRESS, DEPRIME, CTG CASE -</u> used to deprime fired primers from cases returned from posts, camps (forts), stations. Cases may be dirty, rusty, or mutilated and obli- gated for salvage only.	Red River Army Depot (photograph only)
FSC 1315 Ammunition 75mm to 125mm Component - Fuzes	0007	<u>FIXTURE, PROJECTILE ADAPTER</u> <u>HOLDING</u> - used to stake aux- iliary detonating fuze to adapter and body plug to body of auxiliary detonating fuze. Used on 3"/50, 5"/38, 5"/54, 6"/47 SP/47 DP, 8"/55, 16"/45 & 16"/50 ammunition.	Naval Ammunition Production Engineering Center NAPEC Dwg 0282
	0009	<u>TOOL, STAKE REMOVAL</u> - used for removing stakes in auxil- iary detonating fuze adapter assembly. Used on 3"/50, 5"/38, 5"/54, 6"/47 SP/47D, 8"/55, 16"/45 & 16"/50 ammu- nition	Naval Ammunition Production Engineering Center NAPEC Dwg 0290
	0022	<u>FIXTURE, STAKING</u> - used for staking the closing screw on the M48A3 PD Fuze	Naval Ammunition Production Engineering Center NAPEC Dwg 1202
	0024	<u>STAND, VISE, FUZING & DE- FUZING, 3"/50</u> - used to hold the 3"/50 projectile for for fuzing/defuzing opera- tion	Naval Ammunition Production Engineering Center WPEC Dwg 1850
	0035	<u>WRENCH, TORQUE, M91 BD FUZE</u> - used to torque the M91 BD fuze to the projectile during renovation of ctg 105mm, HEP-T, M327	Naval Ammunition Production Engineering Center Hawthorne AAP Dwg 74-41

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Fuzes -- Continued	0039	<u>HOLDER, AUXILIARY DETONATING FUZE, MK54 MOD 2</u> - holds the auxiliary detonating fuze stationary while the projectile adapter is installed or removed. Used on 5"/38, 5"/54, 3"/50 and 16"/50 ammunition	Naval Ammunition Production Engineering Center JC 3-1a MEADE Collet with adapter
	0041	<u>REMOVAL TOOL</u> - used to remove the adapter and the auxiliary detonating fuze from the projectile	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-A
	0042	<u>ADAPTER HOLDING FIXTURE 3"/50 AMMO</u> - used as a holding fixture for staking the ADF to the adapter. Also used to hold the ADF/adapter during installation or removal of the PDF	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-B
	0043	<u>EQUIPMENT, STAKE REMOVAL, 3"/50 AMMUNITION</u> - a jig and drill press used to drill out the retaining pins when removing the PDF from the adapter	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-C
	0044	<u>AUXILIARY DETONATING FUZE HOLDING FIXTURE</u> - used to hold the ADF during installation, removal of the proj adapter. May be used as an alternate item to the Meade collet fixture NSA # 0039, used on 3"/50, 5"/38 and 5"/54 Navy gun ammunition	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-D
	0045	<u>ADAPTER HOLDING FIXTURE</u> - used to hold adapter for staking the ADF to the adapter. Also used to hold the ADF/adapter during installation/removal of the PDF	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-E

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Fuzes -- Continued	0046	<u>TOOL, REMOVAL, ADF/ADAPTER</u> - used to remove adapter 1227710 and ADF from the projectile. See NAPEC Dwg 0291 item #21. Used on 3"/50 ammo	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-F
	0047	<u>TOOL, BODY PLUG</u> - used to in- stall and remove the body plug in the ADF during re- placement of the sealing cup assembly (SCA). See NAPEC Dwg 0291 item #22. Used on 3"/50, 5"/38, 5"/54 ammo	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-G
	0048	<u>TOOL, SEALING CUP REMOVAL</u> - used to remove SCA's that do not have a soldered cover disc over the firing pin or are stuck in the ADF. See NAPEC Dwg 0291 item #11. Used on 3"/50, 5"/38, 5"/54, 16"/50 ammo	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-H
	0051	<u>TOOL, SEALING CUP REMOVAL</u> - used to remove the SCA during normal replacement procedure. See NAPEC Dwg 0291 item #12. Used on 3"/50, 5"/38, 5"/54 ammo	Naval Ammunition Production Engineering Center WPEC Dwg # 1758
	0054	<u>ADAPTER, TORQUE WRENCH</u> - used to torque the fuze to the projectile on 3"/50 & 5"/38 ammunition	Naval Ammunition Production Engineering Center NAPEC Dwg 0411
	0056	<u>WRENCH, ADF BODY PLUG</u> - used to remove, install and torque the body plug in ADF's that are installed and staked in projectile adapter. See NAPEC Dwg 0291 item #9. Used on 3"/50, 5"/38, 5"/54, 16"/50 ammunition	Naval Ammunition Production Engineering Center WPEC Dwg 1879

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Fuzes -- Continued	0095	<u>TOOL, FUZE LIFTING</u> - used to remove PIBD FUZE M509A1 from the 120mm projectile	Naval Ammunition Production Engineering Center NAPEC Dwg 432
	0119	<u>DRIVE ADAPTER</u> - used in con- junction with a Navy defuzing machine to remove VT-FR fuzes from 3"/50 and 3"/70 ctgs	Naval Ammunition Production Engineering Center NAPEC Dwg 1326
	0120	<u>WRENCH, BODY</u> - used in con- junction with a Navy defuzing machine to remove VT-FR fuzes from 3"/50 and 3"/70 cts	Naval Ammunition Production Engineering Center NAPEC Dwg 1328
	0123	<u>WRENCH, DEFUZING</u> - used to remove M91 BDF from 105mm HEP-T ctg	Crane Army Ammu- nition Activity NAD Crane Dwg 7535
	0124	<u>WRENCH, FUZE</u> - used to re- move the M66 fuze from 3"/50 and 3"/70 cartridges	Naval Ammunition Production Engineering Center ALPEC Dwg 599-A-6
	0151	<u>WISE, PNEUMATIC W/MOTOR</u> - used for remote control de- boosting of 60mm and 81mm mortar fuzes	Savanna Depot Activity AMXSV-6804A
	0173	<u>THREAD, DIE, FUZE THREAD CLEANING</u> - used for cleaning fuze threads on M52 series fuzes for 60mm and 81mm mortar	Letterkenny Army Depot AMXLE-7003D Local Dwg A-70399
	0174	<u>THREAD, DIE, FUZE THREAD CLEANING</u> - used for cleaning fuze threads on fuze, PD, M51, M500 series and M557	Letterkenny Army Depot AMXLE-7003E Local Dwg A-70404

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 0254 75mm to 125mm Component - Fuzes -- Continued		<u>HANGER, MONORAIL CONVEYOR, FUZED PROJECTILES</u> - used to suspend 57mm thru 106mm fuzed projectiles from a monorail conveyor	Red River Army Depot AMXRR-6712B
	0358	<u>WRENCH, FUZE REMOVAL</u> - used for removal of M500 series fuzes form various projec- tiles	Lexington-Blue Grass Depot Activity AMXLX-AP-2-6702B Local Dwg LBAD 9-145
	0370	<u>SHIELD, OPERATIONAL</u> - used for removal of fuze from 81mm TP M43 mortar	Pueblo Depot Activity AMXPU-6802A
	0588	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install VT fuzes and dummy nose plugs from pro- jectiles	Naval Ammunition Production Engineering Center NAPEC 0411-9
	0589	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install CVT, MTF PDT, fuzes and dummy nose fuzes	Naval Ammunition Production Engineering Center NAPEC 0411-10
	0590	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install MTF fuzes and dummy nose plugs	Naval Ammunition Production Engineering Center NAPEC 0411-11
	0591	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install Mt/PDF and PD/PD Delay Fuzes	Naval Ammunition Production Engineering Center NAPEC 0411-12
	0592	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install, torque and the MK149 nose fuze from projectiles	Naval Ammunition Production Engineering Center NAPEC 0411-13

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Fuzes -- Continued	0593	<u>WRENCH, FUZE</u> - used to assemble, torque and disas- semble fuzes from mortar rounds	Naval Ammunition Production Engineering Center NAPEC 0440
	0595	<u>WRENCH, FUZE</u> - used to assem- ble, torque and disassemble fuzes from mortar rounds	Naval Ammunition Production Engineering Center NAPEC Dwg 0440
FSC 1315 Ammunition 75mm to 125mm Component - Fin & Fin Kits	0003	<u>WRENCH, 81MM, MORTAR BOOM</u> - used to install/remove boom assembly of 81mm M362 series mortar during production, renovation, rework	Naval Ammunition Production Engineering Center NAPEC Dwg 0065
	0023	<u>WRENCH, FIN</u> - used to assem- ble/disassemble the fin assy M149, M170, M4A1 from the 81mm mortar RDS	Naval Ammunition Production Engineering Center NAPEC Dwg 1208
	0098	<u>TOOL, FIN ASSEMBLY</u> - used for removal of fin assy on 120mm projectile	Naval Ammunition Production Engineering Center NAPEC Dwg 977
	0325	<u>TOOLS, HAND, MORTAR</u> - used for assembly of the fin and propellant system to 81mm mortar detecting set seismic, AN/GSQ 136	Sierra Army Depot AMXSI-6907A
	0354	<u>ADAPTER, TORQUE WRENCH, MORTAR FIN</u> - used in conjunc- tion with a torque wrench for assembling fins to 81mm mortar bodies	Lexington-Blue Grass Depot Activity AMXLX-6701C Local Dwg (LBDA 9-137)
	0355	<u>WISE, AIR FIN HOLDING</u> - used to hold 81mm mortar fins during deprime-reprime operation	Lexington-Blue Grass Depot Activity ALXLX-6701A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Fin & Fin Kits -- Continued	0356	<u>WRENCH, MORTAR FIN REMOVAL</u> - used to remove fins from 81mm mortar bodies	Lexington-Blue Grass Depot Activity AMXLX-6701B
	0379	<u>WRENCH, FIN REMOVAL</u> - used for removing 81mm mortar fins M3, M4A1, M141	Red River Army Depot AMXRR-6701B Local Dwg 1020533
	0386	<u>HOLDING FIXTURE, 81MM</u> - used to hold the 81mm mortar for assembly of the M141 fin	Red River Army Depot AMXRR-6701J Local Dwg 1030586
	0390	<u>FIN WRENCH, M3 MORTAR FIN</u> - used for assembly and torque of the M3 fin to the 81mm mortar projectile	Red River Army Depot AMXRR-6701N Local Dwg 1020566
FSC 1315 Ammunition 75mm to 125mm Component - Projectile	0002	<u>PICK, THREAD CLEANING</u> - used for manually cleaning explo- sive "D" from all projectile threads during renovation. Used on 75MM, 76MM, 81MM, 3", 5", 6", 8", 16" ammo	Naval Ammunition Production Engineering Center NAPEC Dwg 0061
	0010	<u>FIXTURE, PROJECTILE SPINNING</u> used to spin the projectile base end down for painting and striping. Used on 3", 105mm, 5"/38, 5"/54, 6"/47 ammo	-Naval Ammunition Production Engineering Center NAPEC Dwg 0317

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Projectile -- Continued	0021	WRENCH, NOSE FUZE - used to install/remove fuzes, adapters, and dummy nose plugs. Fuzes: CVT: MK 58, 59, 60, 61, 62, 65, 66, 67, 357, 358, 359, 360, 361, 365, 366, 367; MTF: MK 25, 50, 51, 61; ADF: MK 395, 396; VTRF: MK 73, 74; VTIR: MK41, MT: MK22 dummy 329486-9; Adapters: 434054-5"/54, 434044-5"/54; Dummy nose plug: 587571, 1700303, 275300, 3"/50 MK 27 434056, 3"/50 MK 31, 33 - 434036, 5"/54 MK 41; 6"/47 (DP) MK39 561811_3, 434038_5"/38, 6"/47 (DP), 8"/55, 16"/45/50, 5"/54	Naval Ammunition Production Engineering Center ALPEC Dwg 581 series ALPEC Dwg 328-H-10 NAPEC 1310
	0065	HANGING JIG, OVERHEAD CONVEYOR - used for hanging fuzed or plugged projectile from an overhead conveyor. Used on 75mm, 76mm, 90mm, 105mm, 3"/50	Anniston Army Depot SDSAN-Dwg AS-1-78
	0292	HANGER, MONORAIL, PROJECTILE - used to suspend the 105mm plugged projectile from the monorail conveyor for painting (nose down)	Red River Army Depot AMXRR-6908A
	0310	DRILL, AIR, THREAD CLEANING - used with an adapter for a bronze wire brush to clean threads in various size projectile fuze cavities	Seneca Army Depot ANXSE-6803I
	0319	THREAD CHASER, PROJECTILE FUZE THREADS - used to chase threads in noze fuzewell by hand operation for projectiles 57mm thru 106mm	Sierra Army Depot AMXSI-6902A
	0481	BUFFING MACHINE, PROJECTILES 57MM THRU 106MM - used for powered brush cleaning of projectiles and other components	Anniston Army Depot SDSAN-7709A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Projectile -- Continued	0519	GAGE, V-BLOCK (TMDE) - used to check the concentricity of the XM10 tracer assembled to 90mm M71A1 projectile	Savanna Depot Activity AMXSV-6704A
FSC 1315 Ammunition 75mm to 125mm Component - Ignition Ctg	0170	TOOL, IGNITION CTG REMOVAL - used to remove the ignition ctg from ctg 4.2 inch M329 (shielded opn)	Letterkenny Army Depot AMXLE-6908A Local Dwg # A-70371
	0271	TORQUE ADAPTER, IGNITION CTG HOUSING - used for tor- quing the ignition ctg housing on 4.2" mortars	Red River Army Depot AMXRR-6805B
	0341	TOOL, IGNITION CTG HOUSING REMOVAL - used to remove the ignition ctg housing from 81mm M362 & M374 mortar ctgs	Sierra Army Depot (photo's only)
FSC 1315 Ammunition 75mm to 125mm Component - Propellant & Holders	0172	TOOL, INCREMENT HOLDER SEATING - used to seat incre- ment holders on ctg 4.2" M329	Letterkenny Army Depot AMXLE-6909A Local Dwg # B70377
	0335	CABINET, ARTILLERY PROPEL- LANT COLLECTION - used on collection of artillery pro- pellant in lieu of APE 1028	Sierra Army Depot AMXSI-7104B
FSC 1315 Ammunition 75mm to 125mm Component - Cartridge Extension	0113	TORQUE ADAPTER, CTG CNTR EXTENTION - used for apply- ing torque to ignition ctg container extension on 4.2" mortar rounds	Red River Army Depot Dwg # 1030646
	0129	TORQUE ADAPTER, STRIKER NUT & CTG EXTENSION - used to torque striker nut and ctg cntr extension on 4.2" M329 mortar ctgs	Anniston Army Depot SDSAN-7708A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Cartridge Extension -- Continued	0158	<u>TOOL, CTG HOURING, 81MM M362</u> - used to assemble/re- move the ctg housing from the 81mm M362 round	Letterkenny Army Depot AMXLE-7010A Local Dwg # A-70427
	0171	<u>TOOL, CTG CNTR EXTENSION REMOVAL</u> - used for removing tight ctg container exten- sion from 4.2" M329A1	Letterkenny Army Depot AMXLE-6812C Local Dwg # A-70386
	0219	<u>WRENCH, CTG EXTENSION</u> - used to assemble, disassemble or torque ctg cntr extension on 4.2" M329 round	Savanna Depot Activity AMXSV-7012B Local Dwg SK 128
	0341	<u>TOOL, IGNITION CTG HOUSING REMOVAL</u> - used to remove the ignition ctg housing from 81mm M362 & M374 mortar ctgs	Sierra Army Depot (photo's only)
	0391	<u>WRENCH, SPANNER, CTG HOUSING ASSY</u> - used for assembly of the ctg housing to the 81mm M362 mortar	Red River Army Depot AMXRR-6701-0 Local Dwg 1020565
	0392	<u>WRENCH, SPANNER, CTG HOUSING DISASSY</u> - used for disassem- bly of the ctg housing from the 81mm M362 mortar	Red River Army Depot AMXRR-6701-P Local Dwg 1020564
	0542	<u>EQUIP, DISASSY, STRIKER NUT & CNTR EXTENSION</u> - accessory to APE 1210 to remove frozen ctg cntr extensions and frozen striker nuts	Caerwent Depot Activity AERUK-7710A
FSC 1315 Ammunition 75mm to 125mm Component - Fuzewell & Liner	0057	<u>WRENCH, REMOVAL FUZEWELL CUP</u> used to remove and install the fuzewell liner in 3"/50, 5"/38 & 5"/54 projectiles NAPEC Dwg 0424	-Naval Ammunition Production Engineering Center

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Fuzewell & Liner -- Continued	0331	<u>DIAL DEPTH GAGE - FUZEWELL</u> - used to gage the depth of cavities in rounds which have been deep drilled	Sierra Army Depot AMXSI-7009B
	0422	<u>WRENCH, FUZEWELL LINER, POWERED</u> - used for insertion and removal of fuzewell liners	Red River Army Depot AMXRR-6701B Local Dwg 1020343
	0537	<u>FIXTURE, FUZEWELL LINER REMOVAL</u> - used to remove fuzewell liners from projec- tiles that cannot be removed using APE 1128 or 1140	Lexington-Blue Grass Depot Activity SDSLX-7708A
FSC 1315 Ammunition 75mm to 125mm Component - WADS	0107	<u>TOOL, WAD REMOVAL, NON SPARKING, 3"/5"/6" AMMO</u> - used to remove pyralin/plas- tic/polyethylene WADS from 3"/5"/6" propelling charge assemblies	Naval Ammunition Production Engineering Center NAPEC Dwg 1333
FSC 1315 Ammunition 75mm to 125mm Component - Burstors & Wells	0011	<u>TOOL, BURSTER REMOVAL</u> - used to remove bursters from Marine Corps 90mm, 105mm and 106mm ammunition	Naval Ammunition Production Engineering Center NAPEC Dwg 0320
FSC 1315 Ammunition 75mm to 125mm Component - Supplementary Charge	0152	<u>TOOL, SUPPLEMENTARY CHARGE REMOVAL</u> - used for removing supplementary charge paper liners from all deep cavity shells	Savanna Depot Activity AMXSV-6805A Local Dwg ORDJU-115
FSC 1315 Ammunition 75mm to 125mm Component - Closing Plugs	0094	<u>WRENCH, CLOSING PLUG</u> - used for removing the M99 closing plug on 120mm propellant charge assembly	Naval Ammunition Production Engineering Center NAPEC Dwg 431

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Closing Plugs	0096	<u>HOLDING FIXTURE</u> - used to hold prop charge while removing closure plug on 120mm prop chg assembly	Naval Ammunition Production Engineering Center NAPEC Dwg 433
	0130	<u>WRENCH, ADAPTER, NOSE PLUG REMOVAL</u> - used to remove dummy nose plug from 3"/50 MK 27 & 3"/70 MK 34 projectiles	Naval Ammunition Production Engineering Center ALPEC Dwg 328-H-11
FSC 1315 Ammunition 75mm to 125mm Component - Base Plates	0122	<u>TOOL, BASE PLUG & LOAD REMOVAL</u> - used to remove the base plug and illuminating load from 3"/50 and 3"/70 projectiles	Naval Ammunition Production Engineering Center NAPEC Dwg 1203
	0366	<u>MACHINE, TORQUING, BASE PLUG</u> - used to assemble and torque the base plug to 105mm M84 A1 projectiles	Lexington-Blue Grass Depot Activity SDSLX-7807A
FSC 1315 Ammunition 75mm to 125mm Component - Cartridges	0603	<u>ADAPTER, PRESSURE PLATE NUT TORQUE</u> - used to torque the pressure plate nut on 4.2 in. mortar HE M329 to 70 in. pound	Red River Army Depot Local Dwg 1030648
FSC 1315 Ammunition 75mm to 125mm Component - Boosters	0030	<u>DRILL FIXTURE, BOOSTER</u> - used to drill a new stake notch on the M125A1 booster	Crane Army Ammunition Activity NAD-Crane Dwg 6916
	0032	<u>FIXTURE, HOLDING</u> - used to hold the M48 series fuze in place to assemble booster prior to staking	Crane Army Ammunition Activity NAD Crane Dwg 7158
	0151	<u>WISE, PNEUMATIC W/MOTOR</u> - used for remote control de-boosting of 60mm and 81mm mortar fuzes	Savanna Depot Activity AMXSU-6804A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Booster -- Continued	0380	<u>DEBOOSTERING MACHINE, FUZE</u> - used on fuzes that are diffi- cult to deboost in APE 1118 (mortar fuzes 60mm & 81mm)	Red River Army Depot AMXRR-6701C Local Dwg 1050741
FSC 1315 Ammunition 75mm to 125mm Component - Parachute	0122	<u>TOOL, BASE PLUG & LOAD REMOVAL</u> - used to remove the base plug and illuminating load from 3"/50 and 3"/70 projectiles	Naval Ammunition Production Engineering Center NAPEC Dwg 1203
FSC 1315 Ammunition 75mm to 125mm Component - Closing Screw	0029	<u>WRENCH, FUZE</u> - used to in- stall/remove the bottom closing screw	Crane Army Ammu- nition Activity NAD Crane Dwg 6833
	0031	<u>FIXTURE, HOLDING</u> - used to hold the M48 series fuze while drilling out the bottom closing screw stakes	Crane Army Ammu- nition Activity NAD Crane Dwg 7149
FSC 1315 Ammunition 75mm to 125mm Component - Adapters - Nose Adapter & Base Adap- ter	0099	<u>ADAPTER, REMOVAL DEVICE</u> - used for removal of adapter assembly and pulling auxi- liary detonating fuze on 5"/54 Comp A projectiles or 4.5" rocket head	Crane Army Ammu- nition Activity Crane Dwg 2932
	0228	<u>WRENCH, BOOSTER ADAPTER</u> - used to remove nose adapter from projectiles that have booster remaining in adapter after disassy	Red River Army Depot AMXRR-6701I
FSC 1315 Ammunition 75mm to 125mm Component - Fiber & Plas- tic Con- tainers	0149	<u>LID PULLER, FIBER CONTAINERS, ARTILLERY AMMUNITION</u> - modi- fication kit to APE 1003 to pull a single lid	Savanna Depot Activity AMXSV-6705A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Fiber & Plas- tic Con- tainers -- Continued	0155	<u>DEVICE, PAINTING, FIBER CON- TAINER, CHEMICAL AMMUNITION</u> - used for painting chemical stripes on M253 containers	Letterkenny Army Depot AMXLE-7007G
	0178	<u>KNIFE, TAPE CUTTING</u> - knife with a disc guard used to cut the sealing tape on fiber container end cap to body joint	Lexington-Blue Grass Depot Activity AMXLX-6705B Local Dwg LBAD 9-147
	0238	<u>TURNTABLE, AIR POWERED, FIBER CONTAINER PAINTING</u> - used to rotate fiber contain- ers for ease in painting. Used on containers model M201A1, M263, M251, M71A1, M202A1, M166A2, M105A2, M451	Red River Army Depot AMXRR-6708J
	0266	<u>HANGER, PAINTING FOR FIBER CONTAINERS</u> - used to hold fiber container on a monorail conveyor or suspended hook for painting	Red River Army Depot AMXRR-6802G
	0267	<u>TIMER, TAPING MACHINE</u> - used with APE 1004 (basic) to de- termine speed of taping machine head to allow an increase or decrease of speed	Red River Army Depot AMXRR-6803A
	0312	<u>TAPING MACHINE, HAND OPERATED</u> - used for sealing fiber containers 57mm thru 106mm with acetate tape	Seneca Army Depot AMXSE-6803H
	0340	<u>TOOL, CTG REMOVAL, SWELLED FIBER CONTAINERS</u> - hand tool that fits over cartridge case head enabling operator to pull round from container	Sierra Army Depot AMXSI-7107A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Fiber & Plas- tic Con- tainers -- Continued	0436	<u>TORQUE ADAPTER, PLASTIC CONTAINER LIDS</u> - used to tighten lids on plastic con- tainers, 81mm M513, to a specified assembly torque	Red River Army Depot AMXRR-6805H Local Dwg 1020576
	0437	<u>FIXTURE, HOLDING, PLASTIC CONTAINER</u> - used to hold the 81mm M513 container for re- moval of lid	Red River Army Depot AMXRR-6805I Local Dwg 1030603
	0487	<u>TORQUE ADAPTER, PLASTIC CONTAINER LIDS</u> - used to tighten caps on plastic con- tainers for ctg 81mm, HE M374 to a specified torque	Seneca Army Depot AMXSE-6803L
FSC 1315 Ammunition 75mm to 125mm Component - Barrier Bags	0004	<u>FIXTURE, BARRIER BAG EX- PANDER</u> - used to insert fiber containers for 90mm, 105mm & 106mm into barrier bags. Fixture minimizes possibility of tearing the bag while in- serting the fiber container	Naval Ammunition Production Engineering Center NAPEC Dwg 0174
FSC 1315 Ammunition 75mm to 125mm Component - Packing Sup- ports	0535	<u>EXTRACTOR, WOODEN SUPPORT RING</u> - used to remove binding wooden support rings from the M574A1, 105mm rap round fiber container to enable upack of the projectile	Red River Army Depot Photo descrip- tion only
FSC 1315 Ammunition 75mm to 125mm Component - Tracers	0100	<u>WRENCH, TRACER REMOVAL</u> - used for removing the M5A2B1 tra- cer from the 120mm projectile	Crane Army Ammu- nition Activity Crane Dwg 7588
	0121	<u>WRENCH, PIN, SPANNER</u> - used for removing the tracer & base plug from 3"/50 MK27, MK29 and 3"/70 MK34 BL & PT projectiles	Naval Ammunition Production Engineering Center WPEC Dwg 1833

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Tracers -- Continued	0329	WRENCH, TRACER REMOVAL - used with a pneumatic wrench to remove the M5A2B1 tracer from 90mm HVAP RDS	Sierra Army Depot AMXSI-7001B
	0451	TORQUE WRENCH, TRACER ADAPTER, 90MM - used to torque the tracer into the 90mm projectile base	Tooele Army Depot TEAD Sketch SK-90-1
	0519	GAGE, V-BLOCK (TMDE) - used to check the concentricity of the XM10 tracer assembled to the 90mm M71A1 projectile	Savanna Depot Activity AMXSV-6704A
	0541	TOOL, TRACER ELEMENT REMOVAL - used to remove the M5 series tracer element from the 120mm T16E3 smoke projectile	-Tooele Army Depot TEAD Sketch AC-SK-82-05-A
	0618	TOOL TRACER REMOVAL - used to remove M13 tracer on 90mm projectiles., M318 & M353	Naval Ammunition Production Engineering Center NAPEC 1374
	0619	WRENCH, HAND, TRACER REMOVAL - used to remove M3, M5A2, M5A2B1 and M10 tracers	-TMX 30125
FSC 1315 Ammunition 75mm to 125mm Component - Base Plugs	0079	WRENCH ASSY FOR BASE FUZE HOLE PLUG - used to remove and install base fuze hole plugs in projectiles	Naval Ammunition Production Engineering Center ALPEC Dwg 335-B-1
	0121	WRENCH, PIN, SPANNER - used for removing the tracer & base plug from 3"/50 MK27, MK29 and 3"/70 MK34 BL & PT projectiles	Naval Ammunition Production Engineering Center WPEC Dwg 1833
	0122	TOOL, BASE PLUG & LOAD REMOVAL - used to remove the base plug and illuminating load from 3"/50 and 3"/70 projectiles	Naval Ammunition Production Engineering Center NAPEC Dwg 1203

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Base Plugs -- Continued	0225	<u>WRENCH, BASE PLUG, 105MM PROJ</u> - used to remove and assemble the base plug on 105mm proj	Red River Army Depot AMXRR-6704B
	0366	<u>MACHINE, BASE PLUG TORQUE</u> - used to torque base plugs of projectiles 105mm M84A1	Lexington-Blue Grass Depot Activity SDSLX-7807A
FSC 1315 Ammunition 75mm to 125mm Component - Expelling Charges	0075	<u>DEVICE, EXPELLING CHARGE REMOVAL</u> - used to remove plastic cased expelling charges from 105mm M84A1 smoke rds by push out of charge thru nose. Cylinder piston pushes ctg through body	USAGH Akizuki, Japan Pictorial & Description
	0175	<u>PROBE, EXPELLING CHARGE REMOVAL</u> - used to remove stuck expelling charges from the 105mm M84 leaflet rounds	Lexington-Blue Grass Depot Activity
FSC 1315 Ammunition 75mm to 125mm Component - Fuze Lock Plug	0097	<u>WRENCH, LOCK PLUG</u> - used to remove the fuze lock plug from the 120mm projectiles	Naval Ammunition Production Engineering Center NAPEC Dwg 434
FSC 1315 Ammunition 75mm to 125mm Component - Ctg Case Loading Plug	0126	<u>FIXTURE, LOADING PLUG RE- MOVAL, 106MM M344A1 CTGS</u> - used to remove the loading plug from ctg case base of the M93, M93B1 and M94B1 ctg cases	Anniston Army Depot AMXAN-7303A
FSC 1315 Ammunition 75mm to 125mm Component - Dummy Nose Plug or Nose Plug	0130	<u>WRENCH, ADAPTER, NOSE PLUG REMOVAL</u> - used to remove dummy nose plug from 3"/50 MK27 & 3"/70 MK34 projectiles	Naval Ammunition Production Engineering Center ALPEC Dwg 328-H-11

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Dummy Nose Plug or Nose Plug -- Continued	0589	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install CVT, MTF, PDF fuzes and dummy nose plugs	Naval Ammunition Production Engineering Center NAPEC 0411-10
	0590	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install MTF fuzes and dummy nose plugs	Naval Ammunition Production Engineering Center NAPEC 0411-11
FSC 1315 Ammunition 75mm to 125mm Component - Chamber Gage	0134	<u>CHAMBER GAGE EXTRACTOR</u> - used to push the ctg from the chamber gage by applying pressure to nose end of pro- jectile	Letterkenny Army Depot AMXLE-6803A Local Dwg # A-70177
	0409	<u>EXTRACTOR, CHAMBER GAGE, ARTILLERY PROJECTILES</u> - used to remove cartridge from the chamber gage after gaging is complete	Red River Army Depot AMXRR-6701AM
FSC 1315 Ammunition 75mm to 125mm Component - Mortar Primers	0028	<u>WRENCH, PRIMER REMOVAL</u> - used to remove M32, M34 and M71 primers from 60mm and 81mm mortars	Naval Ammunition Production Engineering Center WPEC Dwg 2253
	0162	<u>TOOL, STAND & FIRING, T-68 PRIMERS</u> - used to fire T-68 primers when they cannot be easily removed from the M141 fin assy	Letterkenny Army Depot AMXLE-7011B Local Dwg B-70480
	0364	<u>DEVICE, FIRING, MORTAR PRIMER</u> - a remote control method for firing primers in 81mm mortar fins for safer removal	Lexington-Blue Grass AMXLX-7107D

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1315 Ammunition 75mm to 125mm Component - Mortar Primers -- Continued	0384	<u>PIN WRENCH, MORTAR</u> - used for priming live and depriming fired mortar primers	Red River Army Depot AMXRR-SA6701H Local Dwg 1020534
	0517	<u>TOOL, PRIMER REMOVAL, M34 PRIMER</u> - used for removal and assembly of M34 primer from ctg, 81mm: M43A1, M56A1 and M57A1	Letterkenny Army Depot AMXLE-7107A
FSC 1315 Ammunition 75mm to 125mm Component - Fuze Pull Cords, Mortar Fuzes	0190	<u>TOOL, CRIMPING, MORTAR FUZE PULL CORD</u> - used to crimp the pull cord on 60mm & 81mm (M52A2) mortar fuzed	Letterkenny Army Depot AMXLE-7003C
	0206	<u>TOOL, CRIMPING, MORTAR FUZE PULL CORD</u> - used to crimp the pull cord on 60mm and 81mm (M52A2) mortar fuzes	Red River Army Depot AMXRR-6701Q
FSC 1315 Ammunition 75mm to 125mm Component - Bulk Prop- pellant Powder	0194	<u>FIXTURE, PROPELLANT SETTING</u> - attachment to APE 2020 to settle propellant	Lexington-Blue Grass Depot Activity AMXLX-7107C
FSC 1315 Ammunition 75mm to 125mm Component - Rotating Bands	0253	<u>MACHINE, ROTATING BAND CLEAN-ING</u> - used to clean the rotating band on projectiles 75mm thru 8 inch	Red River Army Depot AMXRR-6712A
	0317	<u>MACHINE, ROTATING BAND CLEAN-ING AND TAPING</u> - removes corrosion and tapes rotating band on 37mm thru 8 inch projectiles prior to painting	Sierra Army Depot AMXSI-6811C

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Com- plete Round or Item	0217	<u>MACHINE, PULL APART, HORI- ZONTAL</u> - used to pull apart fixed artillery ammunition oriented in a horizontal configuration	Savanna Depot Activity AMXSV-7002B
	0244	<u>EQUIPMENT, DISASSY, REMOTE CONTROL</u> - used to disassemble fuzes and tracers from pro- jectiles, plugs from bombs, rocket heads, etc. (single spindle machine similar to APE 1002M2)	Red River Army Depot AMXRR-7107A
	0247	<u>ADAPTER, CONVEYOR (MONORAIL) HANGER</u> - used to adapt vari- ous type hangers to the APE 1044 monorail conveyor	Red River Army Depot AMXRR-6711E
	0255	<u>MACHINE, PROJECTILE STENCIL ING</u> - similar to APE 1175 for marking projectiles	Red River Army Depot AMXRR-6712C
	0489	<u>AIR VISE, PROJECTILE 8 INCH</u> - used for holding 8 inch pro- jectiles for torquing the eyebolt lifting plugs or cleaning of threads	Seneca Army Depot AMXSE-6902A
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Car- tridge Case & Liners	0221	<u>PUNCH, CTG CASE MUTILATION</u> - used in conjunction with APE 1042 to mutilate empty and deprimed cartridge cases	Savanna Depot Activity AMXSV-7304A Local Dwg SK-188
	0571	<u>COVER, 5 IN PROPELLING CHARGE CHARGE OR CARTRIDGE CASE PRIMER PROTECTIVE</u> - used to protect the primer from acci- dental initiation while the propelling charge/cartridge case is removed from the pro- pelling charge tank	Naval Ammunition Production Engineering Center NAPEC 1410

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Car- tridge Case & Liners -- Continued	0572	<u>COVER, 6 IN PROPELLING CHARGE CHARGE OR CARTRIDGE CASE</u> <u>PRIMER PROTECTIVE</u> - used to protect the primer from acci- dental initiation while the propelling charge/cartridge case is removed from the pro- pelling charge tank	Naval Ammunition Production Engineering Center NAPEC 1411
	0573	<u>COVER, 8 IN PROPELLING CHARGE CHARGE OR CARTRIDGE CASE</u> <u>PRIMER PROTECTIVE</u> - used to protect the primer from acci- dental initiation while the propelling charge/cartridge case is removed from the pro- pelling charge tank	Naval Ammunition Production Engineering Center NAPEC 1412
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Primer	0571	<u>COVER, 5 IN PROPELLING CHARGE CHARGE OR CARTRIDGE CASE</u> <u>PRIMER PROTECTIVE</u> - used to protect the primer from acci- dental initiation while the propelling charge/cartridge case is removed from the pro- pelling charge tank	Naval Ammunition Production Engineering Center NAPEC 1410
	0572	<u>COVER, 6 IN PROPELLING CHARGE CHARGE OR CARTRIDGE CASE</u> <u>PRIMER PROTECTIVE</u> - used to protect the primer from acci- dental initiation while the propelling charge/cartridge case is removed from the pro- pelling charge tank	Naval Ammunition Production Engineering Center NAPEC 1411
	0573	<u>COVER, 8 IN PROPELLING CHARGE CHARGE OR CARTRIDGE CASE</u> <u>PRIMER PROTECTIVE</u> - used to protect the primer from acci- dental initiation while the propelling charge/cartridge case is removed from the pro- pelling charge tank	Naval Ammunition Production Engineering Center NAPEC 1412

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Component - Fuze	0007	<u>FIXTURE, PROJECTILE ADAPTER HOLDING</u> - used to stake auxiliary detonating fuze to adapter and body plug to body of auxiliary detonating fuze. Used on 3"/50, 5"/38, 5"/54, 6"/47 SP/47 DP, 8"/55, 16"/45 & 16"/50 ammunition.	Naval Ammunition Production Engineering Center NAPEC Dwg 0282
	0009	<u>TOOL, STAKE REMOVAL</u> - used for removing stakes in auxiliary detonating fuze adapter assembly. Used on 3"/50, 5"/38, 5"/54, 6"/47 SP/47D, 8"/55, 16"/45 & 16"/50 ammunition	Naval Ammunition Production Engineering Center NAPEC Dwg 0290
	0022	<u>FIXTURE, STAKING</u> - used for staking the closing screw on the M48A3 PD Fuze	Naval Ammunition Production Engineering Center NAPEC Dwg 1202
	0027	<u>ADAPTER, TORQUE WRENCH</u> - used for torque of BDF MK31, 83 and base fuze hole plugs BUORD 881163 & 1152944 in 5"/38 and 16"/50 projectiles	Naval Ammunition Production Engineering Center WPEC Dwg 2442
	0036	<u>WRENCH, FUZE SETTING, AUXILIARY</u> - used for setting the sleeve on time fuzes MK15, 18, 22 mods, 11 model 1907, 57 mod 1	Naval Gun Factory Dwg 245748
	0038	<u>ADAPTER, TORQUE WRENCH</u> - used to torque the MK29 PD fuze on 5"/38 and 16"/50 projectiles	Crane Army Ammu- nition Activity NAD Crane Dwg 2762298
	0039	<u>HOLDER, AUXILIARY DETONATING FUZE, MK54 MOD 2</u> - holds the auxiliary detonating fuze stationary while the projectile adapter is installed or removed. Used on 5"/38, 5"/54, 3"/50 and 16"/50 ammunition	Naval Ammunition Production Engineering Center JC 3-1a MEADE Collet with adapter

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Component - Fuze --Continued	0044	<u>AUXILIARY DETONATING FUZE HOLDING FIXTURE</u> - used to hold the ADF during instal- lation, removal of the proj adapter. May be used as an alternate item to the Meade collet fixture NSA # 0039, used on 3"/50, 5"/38 and 5"/ 54 Navy gun ammunition	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-D
	0045	<u>ADAPTER HOLDING FIXTURE</u> - used to hold adapter for staking the ADF to the adap- ter. Also used to hold the ADF/adapter during installa- tion/removal of the PDF	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-E
	0047	<u>TOOL, BODY PLUG</u> - used to in- stall and remove the body plug in the ADF during re- placement of the sealing cup assembly (SCA). See NAPEC Dwg 0291 item #22. Used on 3"/50, 5"/38, 5"/54 ammo	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-G
	0048	<u>TOOL, SEALING CUP REMOVAL</u> - used to remove SCA's that do not have a soldered cover disc over the firing pin or are stuck in the ADF. See NAPEC Dwg 0291 item #11. Used on 3"/50, 5"/38, 5"/54, 16"/50 ammo	Naval Ammunition Production Engineering Center NAPEC Dwg 0291-H
	0051	<u>TOOL, SEALING CUP REMOVAL</u> - used to remove the SCA during normal replacement procedure. See NAPEC Dwg 0291 item #12. Used on 3"/50, 5"/38, 5"/54 ammo	Naval Ammunition Production Engineering Center WPEC Dwg # 1758
	0052	<u>ADAPTER, TORQUE WRENCH, WINDSHIELD</u> - used to torque the windshield on CVT fuzes following time setting proce- dures. Used on 5"/38 and 5"/54 navy gun ammunition	Crane Army Ammu- nition Activity NAD Crane Dwg 6456

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Fuze --Continued	0053	WRENCH, BOX END, WINDSHIELD - used to remove & install the windshield on the CVT fuze when changing time settings. Used on 5"/38 and 5"/54 Navy gun ammunition	Naval Ammunition Production Engineering Center NAVORD Dwg 2494306
	0054	ADAPTER, TORQUE WRENCH - used to torque the fuze to the projectile on 3"/50 & 5"/38 ammunition	Naval Ammunition Production Engineering Center NAPEC Dwg 0411
	0056	WRENCH, ADF BODY PLUG - used to remove, install and torque the body plug in ADF's that are installed and staked in projectile adapter. See NAPEC Dwg 0291 item #9. Used on 3"/50, 5"/38, 5"/54, 16"/50 ammunition	Naval Ammunition Production Engineering Center WPEC Dwg 1879
	0064	WRENCH, FUZE - used to install or remove the MK29 PDF or MK66 PDF on 5"/38, 8" or 16"/50 projectiles	Naval Ammunition Production Engineering Center BUORD Dwg 328821
	0087	WRENCHES & PULLER - used to remove fuzes and adapters from 5" and 6" Navy projectiles	Naval Ammunition Production Engineering Center ALPEC 335-A-1
	0102	WRENCH, FUZE REMOVAL - used to remove the MK66 PD nose fuze from 5" ammunition	Naval Ammunition Production Engineering Center NAPEC Dwg 1325
	0174	THREAD DIE, FUZE THREAD CLEANING - used for cleaning fuze threads on fuze, PD, M51, M500 series and M557	Letterkenny Army Depot AMXLE-7003E Local Dwg A 70404

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Fuzes --Continued	0344	WRENCH, DEFUZZING F/REMOTE OPERATION - used for remote defuzzing (with a defuzzing machine) of BD fuzes MK21 & MK48 from 16"/50 projec- tiles	Crane Army Ammu- nition Activity NAD Crane Dwg 2168
	0349	CAVITY REAMER, BASE FUZE HOLE - used to resize the base fuze cavity of 8" and 16" projectiles by hand methods	Naval Ammunition Production Engineering Center NAPEC Dwg 0405, Rev A
	0358	WRENCH, FUZE REMOVAL - used for the removal of M500 series fuzes from various projectiles	Lexington-Blue Grass Depot Activity AMXLX-AP-2-6702B Local Dwg LBAD 9-145
	0583	WRENCH, FUZE SETTING - used to setting sleeve on time fuzes	Naval Ammunition Production Engineering Center BUORD 510361
	0585	WRENCH, FUZE (BELL-TYPE) - used to remove, torque and install the MK174 VT fuze to projectile	Naval Ammunition Production Engineering Center NAPEC 0411-6A
	0586	WRENCH, FUZE (FLAT TYPE - W/INSERTS) - used to remove and install VT fuze to pro- jectile	Naval Ammunition Production Engineering Center NAPEC 0411-7
	0587	WRENCH, FUZE (FLAT TYPE W/INSERTS) - used to remove and install VT fuzes and adapters to projectile	Naval Ammunition Production Engineering Center NAPEC 0411-8

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Fuze -- Continued	0588	<u>WRENCH, FUZE (FLAT TYPE - W/INSERTS)</u> - used to remove and install VT fuzes and dummy nose plugs from projec- tiles	Naval Ammunition Production Engineering Center NAPEC 0411-9
	0589	<u>WRENCH, FUZE (FLAT TYPE - W/INSERTS)</u> - used to remove and install CVT, MTF, PDF fuzes and dummy nose plugs	Naval Ammunition Production Engineering Center NAPEC 0411-10
	0590	<u>WRENCH, FUZE (FLAT TYPE - W/INSERTS)</u> - used to remove and install MTF fuzes and dummy nose fuzes	Naval Ammunition Production Engineering Center NAPEC 0411-11
	0591	<u>WRENCH, FUZE (FLAT TYPE - W/INSERTS)</u> - used to remove and install the MT/PDF and PD/PO delay fuzes	Naval Ammunition Production Engineering Center NAPEC 0411-12
	0592	<u>WRENCH, FUZE (FLAT TYPE - W/INSERTS)</u> - used to remove, torque and remove the MK149 nose fuze from projectile	Naval Ammunition Production Engineering Center NAPEC 0411-13
	0593	<u>WRENCH, FUZE (FLAT TYPE - W/INSERTS)</u> - used to remove, torque and remove the MK174 VT fuze	Naval Ammunition Production Engineering Center NAPEC 0411-14
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Pro- jectiles	0002	<u>PICK, THREAD CLEANING</u> - used for manually cleaning explo- sive "D" from all projectiles threads during renovation. Used on 5", 6", 8" & 16" ammo	Naval Ammunition Production Engineering Center NAPEC Dwg 0061
	0006	<u>DEVICE, HEATING, WINDSHIELD DISASSEMBLY</u> - heating device for use in removing wind- shields on 5", 6" & 8" Navy projectiles BL & PT configu- ration	Naval Ammunition Production Engineering Center NAPEC Dwg 0317

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Pro- jectiles -- Continued	0091	<u>ADAPTER WRENCH, PROJECTILE</u> - used to remove or install adapter assy on 5"/38 pro- jectile	Naval Ammunition Production Engineering Center NAVORD 2494142
	0092	<u>FUZE WRENCH, PROJECTILE</u> - used to set fuzes on 5"/38 and 5"/54 projectiles	Naval Ammunition Production Engineering Center NAVORD 2494144
	0104	<u>FIXTURE, 155MM PROJECTILE HOLDING</u> - used to hold the projectile during removal and replacement of the fuze adap- ter on the 155MM, VX, M121A1 round	Anniston Army Depot ANAD Dwg E-2-81
	0169	<u>ADAPTER, COLLAR, SEPARATE LOADING PROJECTILE</u> - used to lift & rotate 155mm projec- tile during the washout operation	Letterkenny Army Depot AMXLE-7403A Local Dwg B-70564
	0310	<u>DRILL, AIR, THREAD, CLEANING</u> used with an adapter for a bronze wire brush to clean threads in various size pro- tile fuze cavities	-Seneca Army Depot AMXSE-6803I
	0319	<u>THREAD CHASER, PROJECTILE FUZE THREADS</u> - used to chase threads in nose fuzewell by hand operation for project- tiles 57mm thru 106mm	Sierra Army Depot AMXSI-6902A
	0345	<u>TRUCK, HAND, PROJECTILE, MK 2 MOD 4</u> - used to handle and transport single projectiles, 16"/50 in size, on ships, docks or any hard surface. NSN 4925-00-389-4522	Naval Sea Systems Command BUORD Dwg 466404
	0346	<u>TRUNNION BAND, PROJECTILE</u> - used in conjunction with a sling to handle 16"/50 pro- jectiles	Crane Army Ammu- nition Activity NAD Crane 2958

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Ob- turator, Pressure Plate & Assy	0612	<u>TOOL, OBTURATOR REMOVAL</u> - used to remove the obturator ring from projectile	CAERWENT AERUK RSAC 84-26 RSAC-84-27 RSAC-84-28
	0613	<u>TOOL, OBTURATOR REPLACEMENT</u> - used to replace the obturator ring on the projectile	CAERWENT AERUK RSAC 85-28
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Fuze- well & Liner	0034	<u>45° POSITIONING CLAMP</u> - used to hold the projectile during removal or installation of the burster, fuze well cup, lifting plugs and processing of fuze threads	Crane Army Ammu- nition Activity NAD Crane Dwg 7547
	0057	<u>WRENCH, FUZEWELL CUP</u> - used to remove and install the fuze well liner in 3"/50, 5"/ 38 & 5"/54 projectiles	Naval Ammunition Production Engineering Center NAPEC Dwg 0424
	0331	<u>DIAL DEPTH GAGE - FUZEWELL</u> - used to gage the depth of cavities in rounds which have been deep drilled	Sierra Army Depot AMXSI-7009B
	0357	<u>WRENCH, FUZEWELL LINER REMOVER</u> - designed to remove shallow cavity liners from M104 and M110 WP projectiles	Lexington-Blue Grass Depot Activity AMXLX-6702A Local Dwg LBAD-BCD9-1099
	0422	<u>WRENCH, FUZEWELL LINER, POWERED</u> - used for insertion and removal of fuze well liners	Red River Army Depot AMXRR-6710B Local Dwg 1020343
	0459	<u>TOOL, HAND, FUZE SEAT LINER</u> - used for tightening fuze seat liners in 155mm and 175mm projectiles	Sierra Army Depot AMXSI-6804A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Fuze- well & Liner -- Continued	0478	<u>TOOL, FUZEWELL LINER & BOOSTER CUP REMOVAL</u> - used to remove booster cups and fuzewell liners from 155mm projectiles	Anniston Army Depot AMXAN-7111A
	0537	<u>FIXTURE, FUZEWELL LINER REMOVAL</u> - used to remove fuzewell liners from projec- tiles that cannot be removed using APE 1128 or 1140	Lexington-Blue Grass Depot Activity SDSLX-7708A
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - WADS	0107	<u>TOOL, WAD REMOVAL, NON SPARKING, 3", 5", 6" AMMO</u> - used to remove pyralin/plas- tic/polyethylene wads from 3"/5"/6" propelling charge assemblies	Naval Ammunition Production Engineering Center NAPEC Dwg 1333
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Burster & Wells	0034	<u>45° POSITIONING CLAMP</u> - used to hold the projectile during removal or installation of the burster, fuzewell cup, lifting plugs and processing of fuze threads	Crane Army Ammu- nition Activity NAD Crane Dwg 7547
	0137	<u>TOOL, BURSTER REMOVAL</u> - used for removing M6 burster from the projectile 155mm, smoke, WP, M110	Lexington-Blue Grass Depot Activity AMXLX-7107A
	0339	<u>TOOL, BURSTER CHARGE REMOVAL</u> tool slides over end of M54 burster charge and when tip- ped slightly will remove the charge	-Sierra Army Depot AMXSI-7106M
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Sup- plementary Charges	0152	<u>TOOL, SUPPLEMENTARY CHARGE REMOVAL</u> - used for removing supplementary charge paper liners from all deep cavity shells	Savanna Depot Activity AMXSV-6805A Local Dwg ORDJU-115

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Sup- plementary Charges -- Continued	0414	<u>CUTTER, PAPER (PUNCH & DIE)</u> - used for cutting paper disc supplementary charge spacers on 155mm projectiles	Red River Army Depot AMXRR-6707A
	0530	<u>PNEUMATIC PICK F/SUPPL CHGE DISC REMOVAL</u> - used to remove the aluminum disc from stuck supplementary charges	Savanna Depot Activity AMXSV-7211A
	0531	<u>PNEUMATIC DRILL, STUCK SUPPL CHGE REMOVAL</u> - used to drill supplementary charges which are stuck in rounds	Savanna Depot Activity AMXSV-7211B
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Closing Plugs	0105	<u>CORK PLUG CUTTING MACHINE</u> - used to remove cork plugs that cannot be removed in APE 7019 or that break off during attempted removal w/APE 7019 from propelling charge assemblies on 5"/38, 5"/54 and 6"/47 ammunition	Naval Ammunition Production Engineering Center NAPEC Dwg 2420
	0574	<u>PULLER, 5 INCH CARTRIDGE CASE PLUG</u> - used to remove only the polyurethane plugs with igniter hole in plug from 5 in propelling charge assemblies (will not work on cork or solid polyurethane plugs)	Naval Ammunition Production Engineering Center NAPEC 1364
	0575	<u>BOLT, CLOSING PLUG EXTRACTOR</u> - used to remove cork or poly- urethane plugs from 5 in pro- pelling charge by inserting extractor bolt into igniter hole in plug	Naval Weapon Station Charlestown NSW Charlestown 05-47
	0576	<u>BOLT, CLOSING PLUG EXTRACTOR</u> - used to remove cork or poly- urethane plugs from 5 in pro- pelling charge by inserting extractor	-McAlester Army Ammunition Plant NAD McAlester B-1904

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Base- plates	0426	<u>PIN WRENCH</u> - used to hold the base plug from 155mm projectiles	Red River Army Depot AMXRR-6711G Local Dwg 1020514
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Booster	0032	<u>FIXTURE, HOLDING</u> - used to hold the M48 series fuze in place to assemble booster prior to staking	Crane Army Ammu- nition Activity NAD Crane Dwg 7158
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Clo- sing Screw	0029	<u>WRENCH, FUZE</u> - used to in- stall/remove the bottom closing screw	Crane Army Ammu- nition Activity NAD Crane Dwg 6833
	0031	<u>FIXTURE, HOLDING</u> - used to hold the M48 series fuze while drilling out the bottom closing screw stakes	Crane Army Ammu- nition Activity NAD Crane Dwg 7149
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Perc- ussion Primer	0571	<u>COVER, 5 IN PROPELLING CHARGE CHARGE OR CARTRIDGE CASE</u> <u>PRIMER PROTECTIVE</u> - used to protect the primer from acci- dental initiation while the propelling charge/cartridge case is removed from the pro- pelling charge tank	Naval Ammunition Production Engineering Center NAPEC 1410
	0572	<u>COVER, 6 IN PROPELLING CHARGE CHARGE OR CARTRIDGE CASE</u> <u>PRIMER PROTECTIVE</u> - used to protect the primer from acci- dental initiation while the propelling charge/cartridge case is removed from the pro- pelling charge tank	Naval Ammunition Production Engineering Center NAPEC 1411

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Perc- ussion Primer Continued	0573	<u>COVER, 8 IN PROPELLING CHARGE CHARGE OR CARTRIDGE CASE PRIMER PROTECTIVE</u> - used to protect the primer from acci- dental initiation while the propelling charge/cartridge case is removed from the pro- pelling charge tank	Naval Ammunition Production Engineering Center NAPEC 1412
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Adap- ters - Nose Adapter & Base Adapter	0001	<u>PROJECTILE, TORQUE WRENCH ADAPTER</u> - used to torque pro- jectile adapter, Dwg #434045, to projectiles 5"/38, 6"/47, 8"/55, 16"/45/50	Naval Ammunition Production Engineering Center NAPEC-0061
	0005	<u>WISE GRIP NOSE FUZE ADAPTER WRENCH</u> - used for renovation & rework of 5"/38, 6"/47 sin- gle purpose, 8"/55 and 16"/50 projectiles to hold the pro- jectile adapter during re- moval or replacement of fuze to prevent the adapter from turning the projectile	Naval Ammunition Production Engineering Center NAPEC Dwg 0223
	0008	<u>HOLDING FIXTURE, PROJECTILE ADAPTER</u> - holds adapters used in the 5", 6", & 8" projec- tiles to prevent adapter from turning in the projectile during removal/installation of the nose fuze	Naval Ammunition Production Engineering Center NAPEC Dwg 0287
	0013	<u>WRENCH, PROJECTILE ADAPTER</u> - used to remove/install pro- jectile adapters on Navy 5"/38, 6"/47 SP, 8"/55 and 16"/45/50 projectiles	Naval Ammunition Production Engineering Center ALPEC Dwg 328-H-8
	0080	<u>WRENCH ASSY, NOSE FUZE ADAPTER</u> - used for assembly of the nose fuze adapter on 5"/38 projectiles and also on the 6"/47 MK 34 projectile	Naval Ammunition Production Engineering Center ALPEC Dwg 335-C-1

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Component - Adapter & Base Adapter --Continued	0081	<u>WRENCH ASSY, NOSE FUZE ADAPTER</u> - used for assy of nose fuze adapter 5"/54 - 6"/47 BUORD Dwg 434054 Rev "F", 5"/54 adapter BUWEPS Dwg 2662963, Rev C	Naval Ammunition Production Engineering Center ALPEC Dwg 335-D-1
	0087	<u>WRENCHES & FULLER</u> - used to remove fuzes and adapters from 5" and 6" Navy projectiles	Naval Ammunition Production Engineering Center ALPEC Dwg 335-A-1
FSC 1320 Ammunition 125mm to 16 inch Component - Cartridge Case plugs (Cork & Plastic)	0574	<u>PULLER, 5 INCH CARTRIDGE CASE PLUG</u> - used to remove only the polyurethane plugs with igniter hole in plug from 5 in propelling charge assemblies (will not work on cork or solid polyurethane plugs)	Naval Ammunition Production Engineering Center NAPEC 1364
	0575	<u>BOLT, CLOSING PLUG EXTRACTOR</u> - used to remove cork or polyurethane plugs from 5 in propelling charge by inserting extractor bolt into igniter hole in plug	-Naval Weapon Station Charlestown NSW Charlestown 05-47
	0576	<u>BOLT, CLOSING PLUG EXTRACTOR</u> - used to remove cork or polyurethane plugs from 5 in propelling charge by inserting extractors	-McAlester Army Ammunition Plant NAD McAlester B-1904
FSC 1320 Ammunition 125mm to 16 inch Component - Fiber & Plastic Containers	0149	<u>LID PULLER, FIBER CONTAINERS, ARTILLERY AMMUNITION</u> - modification kit to APE 1003 to pull a single lid	Savanna Depot Activity AMXSV-6705A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Fiber & Plastic Containers --Continued	0155	DEVICE, PAINTING, FIBER CON- TAINER, CHEMICAL AMMUNITION - used for painting chemical stripes on M253 fiber con- tainers	Letterkenny Army Depot AMXLE-7007G
	0178	KNIFE, TAPE CUTTING - knife with a disc guard used to cut the sealing tape on fiber container end cap to body joint	Lexington-Blue Grass Depot Activity AMXLX-6705D
	0312	TAPING MACHINE, HAND OP- ERATED - used for sealing fiber containers 57mm thru 106mm with acetate tape	Seneca Army Depot AMXSE-6803H
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Ammu- nition Cart	0345	TRUCK, HAND, PROJECTILE, MK 2 MOD 4 - used to handle and transport single projectiles, 16"/50 in size, on ships, docks, or any hard surface NSN 4925-00-389-4522	Naval Sea Systems Command BUORD Dwg 466404
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Prop- ellant Charge Con- tainers	0128	RESIZING MACHINE, PROPELLANT CONTAINER - used to remove dents from walls of the 175mm propelling charge container	Anniston Army Depot SDSAN-7710A Local Dwg E-48-77
	0511	TOOL, AIR TEST PLUG - used to remove air test plugs on powder containers or from propelling charge container lids	Letterkenny Army Depot AMXLE-7007H
	0596	WRENCH, POWER TANK - used to remove and tighten tank lid cover on 16 in powder tanks MKIII	Naval Ammunition Production Engineering Center BUORD 204245

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Component - Slings, Hangers, Re- straining Devices	0346	<u>TRUNNION BAND, PROJECTILE</u> - used in conjunction with a sling to handle 16"/50 pro-	Crane Army Ammu- nition Activity NAD Crane 2958
	0532	<u>LIFTING & ROTATING DEVICE</u> - used to lift and rotate 280mm projectiles for washout	Savanna Depot Activity AMXSV-7303A
	0534	<u>SLING, HANDLING</u> - used in Conjunction with non-STD APE # 0346 for 16"/50 projec- tiles	USA DACS Dwg # AC200000313
FSC 1320 Ammunition 125mm to 16 inch Component - Lif- ting Plugs	0034	<u>45° POSITIONING CLAMP</u> - used to hold the projectile during removal or instal- lation of the burster fuze- well cup, lifting plugs and processing of fuze threads	Crane Army Ammu- nition Activity NAD Crane Dwg 7547
	0177	<u>TORQUE ADAPTER, EYEBOLT LIFTING PLUGS</u> - used to apply an assembly torque to the eyebolt lifting plug on separate loading projectiles	Lexington-Blue Grass Depot Activity AMXLX-6705B Local Dwg LBAD-9-146
	0218	<u>DEVICE, PRESSURE TEST, 155MM ICM AMMO</u> - used to pressure test the modified eyebolt lifting plug assembled to ICM rounds	Savanna Depot Activity AMXSV-7006A
	0252	<u>ADAPTER, MONORAIL CONVEYOR, EYEBOLT LIFTING PLUG</u> - adapts projectiles 155mm, 175mm, 8-inch with eyebolt lifting plugs to hooks on the mono- rail conveyor	Red River Army Depot AMXRR-6711J

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Lif- ting Plugs --Continued	0359	<u>ADAPTER, TORQUE WRENCH</u> - used for torque of lifting plugs on 155mm, 175mm or 8-inch projectiles. Plugs may be with or without air sampling plugs	Lexington-Blue Grass Depot Activity AMXLX-6705B Local LBAD 9-146
	0417	<u>TORQUE ADAPTER, EYEBOLT LIFTING PLUG</u> - used for re- moval, insertion and torquing of eyebolt lifting plugs on 155mm, 175mm & 8-inch pro- jectiles	Red River Army Depot AMXRR-6707G
	0588	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install VT fuzes and dummy nose plugs from pro- jectiles	Naval Ammunition Production Engineering Center NAPEC 0411-9
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Base Plugs	0039	<u>HOLDER, AUXILIARY DETONATING FUZE, MK54 MOD 2</u> - holds the auxiliary detonating fuze stationary while the projec- tile adapter is installed or REMOVED. Used on 5"/38, 5"/ 54, 3"/50 & 16"/50 ammunition	Naval Ammunition Production Engineering Center JC 3-1a MEADE Collet with adapter
	0078	<u>BASE PLUG WRENCH</u> - used to remove the base plug w/fuze from the projectile base on 5"/38 and 6"/47 projectiles	Crane Army Ammu- nition Activity Crane Dwg 2987
	0079	<u>WRENCH ASSY FOR BASE FUZE HOLE PLUG</u> - used to remove and install base fuze hole plugs in projectiles	Naval Ammunition Production Engineering Center ALPEC Dwg 335-B-1
	0082	<u>WRENCH, BASE FUZE W/O TRACER</u> - used for removal/installation of base fuzes (w/o tracer element) in 5" and 6" projec- tiles	-Naval Ammunition Production Engineering Center ALPEC Dwg 335-E-1

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Base Plugs -- Continued	0083	WRENCH, BASE FUZE W/TRACER - used for removal/installation of base fuzes (with tracer element) in 5" and 6" projec- tiles	Naval Ammunition Production Engineering Center ALPEC Dwg 335-E-1
	0084	WRENCH ASSY, BASE PLUG - used to remove/install base plugs in 5" and 6" projec- tiles	Naval Ammunition Production Engineering Center ALPEC Dwg 335-G-1
	0092	FUZE WRENCH, PROJECTILE - used to set fuzes on 5"/38 and 5"/54 projectiles	Naval Ammunition Production Engineering Center NAVORD 2494144
	0099	DEVICE, ADAPTER REMOVAL - used for removal of adapter assembly and pulling auxil- iary detonating fuze on 5"/54 comp A projectile	Crane Army Ammu- nition Activity Crane Dwg 2932
	0103	WRENCH, BASE PLUG REMOVAL - used to remove the base plug from the MK46 common 5" pro- jectile	Naval Ammunition Production Engineering Center NAPEC Dwg 1356
	0233	THREAD CHASER - used to chase threads in the 155mm projec- tile base plug cavity	Red River Army Depot AMXRR-6708D
	0249	WRENCH, PIN, BASE PLUG - used for removal/installation of the base plug on 155mm sepa- rate loading projectiles	Red River Army Depot AMXRR-6711G
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Base	0349	CAVITY REAMER, BASE FUZE HOLE - used to resize the base fuze cavity of 8" & 16" projectiles, by hand methods	Naval Ammunition Production Engineering Center NAPEC Dwg 0405, Rev A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Expel- ling Charge	0584	<u>TORQUE WRENCH AND ADAPTER/ EXPPELLING CHARGE</u> - used to torque the expelling charge assembly to the ballast	Crane Army Ammu- nition Activity NAD Crane 6039
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Gas Check Seals	0093	<u>TOOL, GAS CHECK SEAL</u> - used to press gas check gaskets (seals) into 5"/38 and 5"/ 54 projectile bases	Crane Army Ammu- nition Activity Crane Dwg 7636
	0131	<u>PRESS, GAS CHECK SEAL</u> - used to press gas check seals into the 8"/55 HC projectile	Naval Ammunition Production Engineering Center NAPEC Dwg 0066
	0342	<u>WRENCH, DUMMY NOSE PLUG</u> - used to remove and install the dummy nose plug in 16" projectiles	Naval Sea System Command BUORD Dwg 328703
	0343	<u>TOOL, GAS CHECK SEAL</u> - used to install gas check seals on 16"/50 projectiles	Crane Army Ammu- nition Activity NAD Crane Dwg 6114
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Dummy Nose Plug or Nose Plug	0589	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install CVT, MTF, PDF fuzes and dummy nose plug	Naval Ammunition Production Engineering Center NAPEC 1411-10
	0590	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to remove and install the MTF fuzes and dummy nose plugs	Naval Ammunition Production Engineering Center NAPEC 1411-11
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Cham- ber Gage	0409	<u>EXTRACTOR, CHAMBER GAGE, ARTILLERY PROJECTILES</u> - used to remove cartridges from the chamber gage after gaging is complete	Red River Army Depot AMXRR-6701AM

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1320 Ammunition 125mm to 16 inch Compo- nent - Rota- ting Bands	0245	<u>PROTECTOR, ROTATING BAND</u> - used for protecting the rota- ting band during sand blast and/or painting of the pro- jectiles	Red River Army Depot AMXRR-6711B
	0253	<u>MACHINE, ROTATING BAND CLEAN- ING</u> - used to clean the rota- ting band on projectiles 75mm to 8 inch	Red River Army Depot AMXRR-6712A
	0317	<u>MACHINE, ROTATING BAND CLEAN- ING & TAPING</u> - removes corro- sion and tapes rotating band on 37mm thru 8 inch projec- tiles prior to painting	Sierra Army Depot AMXSI-6811C
	0348	<u>TOOL, LIPPING, ROTATING BAND</u> - used to repair minor dents on rotating bands of medium cal- iber projectiles	Crane Army Ammu- nition Activity NAD Crane Dwg 6867
	0351	<u>TOOL, LIPPING, ROTATING BAND</u> - used for lip straightening of rotating bands on 16"/50 pro- jectiles	Naval Ammunition Production Engineering Center NAPEC Dwg 1391
FSC 1325 Bombs - Com- ponent - Complete Round or Item	0244	<u>EQUIPMENT, DISASSEMBLY, REMOTE CONTROL</u> - used to dis- assemble fuzes and tracers from projectiles, plugs from bombs, rocket heads, etc (single spindle machine simi- lar to APE 1002M2)	Red River Army Depot AMXRR-7107A
	0561	<u>TABLE, BOMB DISASSEMBLY</u> - hold bomb for removal of boosters, fuzewell liners, fuze cables, cavity mainte- nance, etc	Crane Army Ammu- nition Activity NAD Crane 5735

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1325 Bombs - Com- ponent - Fuzes	0142	<u>DEBOOSTERING DEVICE</u> - aug- ments APE 1002M2 to perform a remote booster removal operation on bomb V.T. fuzes	Letterkenny Army Depot AMXLE-6902A Local Dwg A-70337
	0327	<u>PRESS, ARBOR, BOOSTER CHARGE REMOVAL</u> - used to remove lead booster from M147A1	Sierra Army Depot AMXSI-6911A
	0562	<u>TOOL, CABLE LOCK RING</u> - used to remove the lock ring from the bomb fuze cable	Crane Army Ammu- nition Activity NAD Crane 6071
	0563	<u>TOOL, CABLE REMOVAL</u> - used to remove the fuze cable from the bomb body	Crane Army Ammu- nition Activity NAD Crane 6072
	0564	<u>WRENCH, CHARGING WELL SHIP- PING PLUG</u> - used to remove the shipping plug from the char- ging well	Crane Army Ammu- nition Activity NAD Crane 6713
	0565	<u>HEATER, STEAM CAVITY LINER</u> - used to melt explosives around the cavity liner for removal	Crane Army Ammu- nition Activity NAD Crane 7551
	0566	<u>CUTTER BOMB CHARGING TUBE</u> - used to cut the charging tube loose from the bomb body	Naval Ammunition Production Engineering Center NAPEC 0430
	0567	<u>WRENCH, CHARGING TUBE FIT- TING NUT</u> - used to remove the fitting nut which affixes the charging tube to the bomb body	Crane Army Ammu- nition Activity NAD Crane 6217
	0578	<u>WRENCH, FUZE T</u> - used to re- move the explosive lead and housing assembly from base of MK 339 fuze	Naval Ammunition Production Engineering Center NAPEC 2X0194-Y3

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1325 Bombs - Com- ponent - Fin & Fin Kits	0579	<u>CLAMP, SAFETY, DISPENSER TAIL FIN</u> - used to restrain the tail cone assembly while working around or with this item	Naval Ammunition Production Engineering Center NAPEC 2X0194-Y4
FSC 1325 Bombs - Com- ponent - Fuzewell & Liner	0234	<u>TOOL, BOMB FUZEWELL ADAPTER</u> - used to insert the bomb fuze- well adapter into the bomb body	Red River Army Depot AMXRR-6708E
	0565	<u>HEATER, STEAM CAVITY LINER</u> - used to melt explosives around the cavity liner for removal	Crane Army Ammu- nition Activity NAD Crane 7551
	0566	<u>CUTTER BOMB CHARGING TUBE</u> - used to cut the charging tube loose from the bomb body	Naval Ammunition Production Engineering Center NAPEC 0430
	0567	<u>WRENCH, CHARGING TUBE FIT- TING NUT</u> - used to remove the fitting nut which affixes the charging tube to the bomb body	Crane Army Ammu- nition Activity NAD Crane 6217
	0577	<u>TOOL, CAVITY LINER REMOVER</u> - used to remove the nose fuze- well cavity liner from bombs to allow steam out of the filler through the bomb nose end	Naval Ammunition Production Engineering Center NAPEC 1425
FSC 1325 Bombs - Com- ponent - Burster & Wells	0577	<u>TOOL, CAVITY LINER REMOVAL</u> - used to remove the nose fuze- well cavity liner from bombs to allow steam out of the filler through the bomb nose end	Naval Ammunition Production Engineering Center NAPEC 1425
FSC 1325 Bombs - Com- ponent - Body	0561	<u>TABLE, BOMB DISASSEMBLY</u> - hold bomb for removal of boosters, fuzewell liners, fuze cables, cavity mainte- nance, etc	Crane Army Ammu- nition Activity NAD Crane 5735

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1325 Bombs - Com- ponent - Closing Plugs	0213	<u>ADAPTER, TORQUE WRENCH</u> - used to remove the nose plug from 750 # bombs	Savanna Depot Activity AMXSV-6810A
	0214	<u>ADAPTER, TORQUE WRENCH</u> - used to remove the tail plug from 750 # bombs	Savanna Depot Activity AMXSV-6810B
FSC 1325 Bombs - Com- ponent - Suspension Lugs & Bands	0037	<u>LOAD TESTER, SUSPENSION LUG</u> - used to pull-test Heli-coil inserts in the suspension lug wells of the MK 80 series low drag bombs	NAVAIR Systems Command SA 2810670
	0055	<u>LOAD TESTER, HOISTING LUG</u> - used to pull-test heli-coil insert in the hoisting lug well of MK 80 series low drag bombs	NAVAIR Systems Command SA 2810670
	0607	<u>DEVICE 500 LB GP BOMB</u> <u>SUSPENSION</u> - used for hoist- ing and suspending bombs from APE 1035 BSR	Red River Army Depot Photo only
FSC 1325 Bombs - Com- ponent - Clustering Adapters	0148	<u>HOLDING FIXTURE, DOWNLOADING,</u> <u>BOMB CLUSTER ADAPTER</u> - holds the ADU 253/B cluster adapter while downloading bomblets from adapter	Savanna Depot Activity AMXSV-7005B
FSC 1325 Bombs - Com- ponent - Baseplates	0243	<u>WRENCH, BOMB, BASEPLATE</u> - used to install/remove base- plates on the 4000 # M56 bomb	Red River Army Depot AMXRR-7206A
FSC 1325 Bombs - Com- ponent - Explosive Leads Arming Wire Cable	0578	<u>WRENCH, FUZE T</u> - used to remove the explosive lead and housing assembly from base of MK 339 fuze	Naval Ammunition Production Engineering Center NAPEC 2X0194-Y3

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1325 Bombs - Com- ponent - Dispensers & Tubes	0216	<u>PLUG GAGE SUU-14A/A DIS- PENSER</u> - used to gage inside diameter of the SUU-14A/A dispenser tubes	Savanna Depot Activity AMXSI-7002A
	0326	<u>TOOL, DENT REMOVAL, SUU-14A/A OR SUU-25 DISPENSER</u> - used to remove dents from empty SUU-14A/A or SUU-25 dispen- ser tubes	Sierra Army Depot AMXSI-6907B
	0579	<u>CLAMP, SAFETY, DISPENSER TAIL FIN</u> - used to restrain the tail cone assembly while working around or with this item	Naval Ammunition Production Engineering Center NAPEC 2X0194-Y4
FSC 1325 Bombs - Com- ponent - Bomblets or Payload	0333	<u>CART, MODIFIED FOR DOWNLOAD - UPLOAD CABINET</u> - a modified cart used with a cabinet to download - upload. BLU-17/B bomblets into SUU-14 dispen- sers	Sierra Army Depot AMXSI-7010B
	0334	<u>SHIELD FOR T-162 CABINET</u> - shield used with NSA # 0333 during download - upload of BLU-17/B WP bomblets	Sierra Army Depot AMXSI-7011A
	0526	<u>BARRICADE, BOMBLET</u> - used for transporting armed BLU-3/B fragmentation bomblets to the demolition area	Savanna Depot Activity AMXSV-7003A
	0536	<u>EQUIPMENT, DOWNLOADING, CBU-25A/A & CBU-25B/A</u> - gravity type download device to safely unload the BLU-24/B bomblets from the SU-14A/A dispenser	Sierra Army Depot Photo's only
	0579	<u>CLAMP, SAFETY, DISPENSER TAIL FIN</u> - used to restrain the tail cone assembly while working around or with this item	Naval Ammunition Production Engineering Center NAPEC 2X0194-Y4

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1325 Bombs - Com- ponent - Adapter Boosters	0195	<u>HOLDING FIXTURE</u> - used w/APE 1206 to remove booster casing on adapter booster, bomb tail, M147	Lexington-Blue Grass Depot Activity AMXLX-7111A
	0425	<u>PIN WRENCH</u> - used for removal of the adapter booster bushing from 750# bombs by remote control	Red River Army Depot
FSC 1325 Bombs - Com- ponent - Cable Assem- blies	0049	<u>TOOL, INSERTING, CABLE, T7</u> - used to install the fuze control cable assembly into MK 80 series low drag bombs	Harry Diamond Labs Dwg 10400011
	0050	<u>TOOL, INSERTING, CABLE, T6</u> - used to install the fuze control cable assembly into MK 80 series low drag bombs	Harry Diamond Labs Dwg 10400012
FSC 1325 Bombs - Com- ponent - Boosters	0142	<u>DEBOOSTERING DEVICE</u> - augments APE 1002M2 to perform a remote booster removal operation on bomb V.T. fuzes	Letterkenny Army Depot AMXLE-6902A Local Dwg A-70337
	0327	<u>PRESS, ARBOR, BOOSTER CHARGE REMOVAL</u> - used to remove lead booster from M147A1 fuze	Sierra Army Depot AMXSI-6911A
	0578	<u>WRENCH, FUZE T</u> - used to remove the explosive lead and housing assembly from base of MK 339 fuze	Naval Ammunition Production Engineering Center NAPEC 2X0194-Y3
FSC 1325 Bombs - Com- ponent - Shipping Plugs	0226	<u>WRENCH, HAND</u> - used to remove and assemble the shipping plug from tritonal bombs	Red River Army Depot AMXRR-6707D
	0564	<u>WRENCH, CHARGING WELL SHIPPING PLUG</u> - used to remove the shipping plug from the charging well	Crane Army Ammu- nition Activity NAD Crane 6713

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1325 Bombs - Com- ponent - Adapters Nose Adapter & Base Adapter	0524	<u>ADAPTER, SPANNER WRENCH</u> - used to retorque the adapter in the tail of 750# M117A1 bombs after removal of the tail plug	Savanna Depot Activity AMXSV-6812A
FSC 1325 Bombs - Com- ponent - Metal & Wooden Con- tainers	0328	<u>HANDLING DEVICE, CBU CON- TAINERS</u> - used to handle empty or packed metal con- tainers containing CBU's by pushing or pulling - not lifting in rail cars	Sierra Army Depot AMXSI-6912D
FSC 1325 Bombs - Com- ponent - Ammunition Cart	0076	<u>CART, BOMB TRANSPORT</u> - cart designed to transport 500# and 750# bombs between work stations restricted to usage at Johnston Island only	USA FORSCOM Johnston Island Dwg AFZV-7803A
FSC 1325 Bombs - Com- ponent - Slings, Hangers, Restraining Devices	0347	<u>HANDLING SLING, BOMB</u> - used to handle bombs up to 1000# gross weight	Crane Army Ammu- nition Activity NAD Crane Dwg 4193 Rev B
FSC 1325 Bombs - Com- ponent - Work Tables, Benches, etc	0561	<u>TABLE, BOMB DISASSEMBLY</u> - hold bomb for removal of boosters, fuzewell liners, fuze cables, cavity mainte- nance, etc	Crane Army Ammu- nition Activity NAD Crane 5735
FSC 1325 Bombs - Com- ponent - Lifting Plug	0262	<u>PLUG, LIFTING, EYEBOLT, BOMB</u> - used for lifting the 4000# bomb by the nose end	Red River Army Depot AMXRR-6801E
FSC 1325 Bombs - Com- ponent - Base Plugs	0227	<u>WRENCH, BOMB, BASE & NOSE PLUG</u> - used to remove and assemble base and nose plugs for bombs	Red River Army Depot AMXRR-6707J

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1325 Bombs - Com- ponent - Base Plugs --Continued	0232	WRENCH, BOMB, BASE & NOSE PLUG (REMOTE CONTROL) - used in conjunction with a remote control disassembly machine to remove nose and base plugs	Red River Army Depot AMXRR-6708C
FSC 1325 Bombs - Com- ponent - Dummy Nose Plug or Nose Plug	0213	ADAPTER, TORQUE WRENCH - used to remove the nose plug from 750# bombs	Savanna Depot Activity AMXSV-6810A
	0214	ADAPTER, TORQUE WRENCH - used to remove the tail plug from 750# bombs	Savanna Depot Activity AMXSV-6810B
	0227	WRENCH, BOMB, BASE & NOSE PLUG - used to remove and assemble base and nose plugs for bombs	Red River Army Depot AMXRR-6707J
	0231	WRENCH, BOMB, NOSE PLUG - used to remove and assemble bomb nose plugs and to torque whenever necessary	Red River Army Depot AMXRR-6708B
	0232	WRENCH, BOMB, BASE & NOSE PLUG (REMOTE CONTROL) - used in conjunction with a remote control disassembly machine to remove nose and base plugs	Red River Army Depot AMXRR-6708C
FSC 1325 Bombs - Com- ponent - Retaining Clips	0059	TOOL, REMOVAL, RETAINING CLIP- used to remove the retaining clip during replacement of the fuze control cable assem- bly on MK80 series Low Drag Bombs. This item is now a component part of APE 7021	Naval Sea Systems Command BUORD Dwg 1180471
	0060	TOOL, REMOVAL, RETAINING CLIP- used to insert the retaining clip during replacement of the fuze control cable assem- bly on MK80 series Low Drag Bombs. This item is now a component part of APE 7021	Harry Diamond Labs Command HDL Dwg 10402535

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1325			
Bombs - Com- ponent - Fin Lock Nut	0235	<u>WRENCH, SPANNER FOR BOMB FIN LOCK NUT</u> - used to loosen or tighten the fin lock nut on bombs	Red River Army Depot AMXRR-6708F
FSC 1330			
Hand & Rifle Grenades Com- ponent - Complete Round or Item	0242	<u>FIXTURE, RIFLE GRENADE DIS- ASSEMBLY</u> - fixture for pull apart of the M31 Rifle Gre- nade. Used in conjunction with APE 1001	Red River Army Depot AMXRR-7203A
	0244	<u>EQUIPMENT, DISASSY, REMOTE CONTROL</u> - used to disassemble fuzes and tracers from pro- jectiles, plugs from bombs, rocket heads, ets. (single spindle machine similar to APE 1002M2)	Red River Army Depot AMXRR-7104A
	0305	<u>BARRICADE, PITCH IN, HAND GRENADE FUZE</u> - used to dis- pose of M213 grenade fuzes which may become armed	Red River Army Depot AMXRR-7505A
	0350	<u>PITCH-IN CONTAINER</u> - used to dispose of WP M15 or M34 hand grenades in emergency situ- ations	Tooele Army Depot SK-81-30F
FSC 1330			
Hand & Rifle Grenades Com- ponent - Fuze	0108	<u>TOOL, WASHER INSERTION</u> - hand tool used for inserting a rubber washer in a metal washer retainer for the M213 hand grenade fuze prior to assembly to the M67 grenade	Red River Army Depot Photo only
	0187	<u>HOLDING FIXTURE GRENADE</u> - used to hold the M26 grenade in an upright position for fuzing	Letterkenny Army Depot AMXLE-6912A
	0204	<u>FIXTURE, FUZING - DEFUZING, M18 COLORED SMOKE GRENADE</u> - used to fuze-defuze the M18 smoke grenade	Lexington-Blue Grass Depot Activity AMXLX-7303H

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1330 Hand & Rifle 0224 Grenades Com- ponent - Fuze Continued		<u>TOOL, GRENADE SLEEVE ASSEMBLY</u> - used to insert a fiberglass sleeve over the stem of the M204 fuze	Red River Army Depot AMXRR-6701Y
	0360	<u>ADAPTER, TORQUE WRENCH</u> - used for defuzing-refuzing M26 hand grenades	Lexington-Blue Grass Depot Depot Activity AMXLX-6705C
	0395	<u>FIXTURE, TORQUE</u> - used for torquing hand grenade fuzes to the M26 grenade body	Red River Army Depot AMXRR-6701U Local Dwg 1010115
	0396	<u>TORQUE WRENCH HOLDER</u> - used to hold the M26 grenade in position for torquing fuze	Red River Army Depot AMXRR-6701V Local Dwg 1050728
	0397	<u>TRAY, SHIELDED FUZE</u> - a com- bination tray and shield for transporting and temporary storage when fuzes are re- moved from hand grenades	Red River Army Depot AMXRR-6701W Local Dwg 1020456
	0429	<u>FIXTURE, VIBRATING</u> - used during fuzing of MK 2 gre- nades to shake grenade body	Red River Army Depot AMXRR-6801C Local Dwg 0150849
FSC 1330 Hand & Rifle 0297 Grenades Com- ponent - Fuzewell & Liner		<u>DRILL, HAND</u> - used to drill the fuzewell cavity 1/16" deeper in the M67 grenade	Red River Army Depot AMXRR-7110B
	0306	<u>TOOL, CAVITY GAGE</u> - used to gage the fuze cavity on M67 hand grenades	Red River Army Depot AMXRR-7509A
	0449	<u>CLEANER, GRENADE FUZEWELL THREAD</u> - used to clean the fuzewell thread on M59 hand grenades	Red River Army Depot SDSRR-7810A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1330			
Hand & Rifle 0263 Grenades Com- ponent - Body		<u>HANGER, PAINTING</u> - used to suspend the M26 grenade body (w/o fuze) for painting	Red River Army Depot AMXRR-6802B
	0568	<u>FIXTURE, HAND GRENADE HOLD- ING</u> - used to hold the hand grenade body while the fuze is torqued	Reserve Storage Activity, CAEWENT RSAC 82-2
	0569	<u>CABINET, GRENADE BODY DRYING</u> used to dry defuzed grenade bodies prior to refuzing	-Reserve Storage Activity, CAEWENT RSAC 82-37B & 82-39 Local RSAS-8331
FSC 1330			
Hand & Rifle 0146 Grenades Com- ponent - Safety Clips		<u>TOOL, SAFETY CLIP SPREADER</u> - used to spread the legs of the safety clip (cotter pin) to the required angle on hand grenades	Letterkenny Army Depot AMXLE-6905F
	0192	<u>GAGE, GO-NO-GO</u> - used for checking the spread of the cotter pin legs on grenade safety clips for MK 2 & M26 grenades	Letterkenny Army Depot AMXLE-7007E
	0208	<u>GAGE, GRENADE COTTER KEY SPREAD</u> - used to check the angle of spread on the cotter pin safety device of grenade fuzes	Red River Army Depot AMXRR-6701X
FSC 1330			
Hand & Rifle 0211 Grenades Com- ponent - Fiber & Plastic Con- tainers		<u>MACHINE, STENCIL, FIBER CON- TAINER</u> - used for stenciling fiber containers for the WP M34 hand grenade	Tooele Army Depot AMXTE-7303A
	0294	<u>FIXTURE, TAPE CUTTER, FIBER CONTAINER</u> - tape cutting fix- ture for use in tape sealing the M415A1 grenade fiber con- tainer used on M33 grenade packout	Red River Army Depot AMXRR-7108A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1330 Hand & Rifle 0220 Grenades Com- ponent - Metal & Wooden Con- tainers		<u>TOOL, TEAR STRIP REMOVAL</u> - used with any drill to engage and remove the tear strip from hermetically sealed metal cans (small arms cans, fuze cans, rocket igniters, etc)	Savanna Depot Activity AMXSV-7112A Local Sketch SK-160
FSC 1330 Hand & Rifle 0604 Grenades Com- ponent - Slings, Hangers, Restraining Devices		<u>FIXTURE, HAND GRENADE HOLD- ING</u> - used to hold grenade while pull test safety clip	Savanna Depot Activity (Photo only)
FSC 1330 Hand & Rifle 0192 Grenades Com- ponent - Grenade Fuze		<u>GAGE, GO-NO-GO</u> - used for checking the spread of the cotter pin legs on grenade safety clips for MK 2 and M26 grenades	Letterkenny Army Depot AMXLE-7007E
	0224	<u>TOOL, GRENADE SLEEVE ASSEMBLY</u> - used to insert a fiberglass sleeve over the stem of the M204 fuze	Red River Army Depot AMXRR-6701Y
FSC 1330 Hand & Rifle 0256 Grenades Com- ponent - Delay Fuze Grenade Housing		<u>CLAMP WRENCH, DELAY HOUSING GRENADE FUZE</u> - holds M204A1 fuze by clamping the delay housing of the fuze	Red River Army Depot AMXRR-6712D
FSC 1340 Rockets Com- 0167 ponent - Complete Round or Item		<u>TRAY, HOLDING, ROCKET ASSY</u> - used to hold the complete 3.5" M29A2 rocket	Letterkenny Army Depot AMXLE-7209B Local Dwg A-70524
	0229	<u>FIXTURE, HOLDING</u> - used to hold the 66mm (LAW) rocket in a fixed position	Red River Army Depot AMXRR-6707F

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1340			
Rockets Com- ponent - Complete Round or Item Continued	0241	<u>MACHINE, PULL TEST, PNEU- MATIC</u> - used to perform a pull test on the (LAW) rocket separating warhead from closure	Red River Army Depot AMXRR-7009A
	0244	<u>EQUIPMENT, DISASSY, REMOTE CONTROL</u> - used to disassemble fuzes and tracers from pro- jectiles, plugs from bombs, rocket heads, etc. (single spindle machine similar to APE 1002M2)	Red River Army Depot AMXRR-7104A
	0247	<u>ADAPTER, CONVEYOR (MONORAIL) HANGER</u> - used to adapt vari- ous type hangers to the APE 1044 monorail conveyor	Red River Army Depot AMXRR-6711E
	0466	<u>FLASH SHIELD</u> - used with rocket disassembly machine APE 1215 to disassemble only the M29A2 practice rocket	Sierra Army Depot AMXSI-7005A
FSC 1340			
Rockets Com- ponent - Fuzes	0529	<u>FIXTURE, ROCKET FUZE</u> - used to remove boosters from the M404 3.5" rocket fuzes (ac- cessory to APE 1002) (remote control only)	Savanna Depot Activity AMXSV-7203A
	0606	<u>FIXTURE, 2.75" WARHEAD FUZE REMOVAL ADAPTION</u> - used to remove the M427 fuze from the 2.75" M151 warhead in con- junction with APE 1153M1	McAlester Army Ammunition Plant Local Dwg D-2018
FSC 1340			
Rockets Com- ponent - Fin & Fin Kits	0161	<u>TOOL, FIN & NOZZLE</u> - used to assemble and remove fins and nozzles on 2.75" rocket motors	Letterkenny Army Depot AMXLE-7011A Local Dwg A70479

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1340 Rockets Com- ponent - Windshield	0594	WRENCH, FUZE (FLAT TYPE W/INSERTS) - used to install and remove the ogive nose on a rocket head	Naval Ammunition Production Engineering Center NAPEC 0411-15
FSC 1340 Rockets Com- ponent - Fuzewell & Liner	0315	TOOL, ROCKET, FUZEWELL LINER REMOVAL - used to remove fuzewell liners from 2.75" rocket warheads	Seneca Army Depot AMXSE-7303A
FSC 1340 Rockets Com- ponent - Closing Plugs	0160	TOOL, CLOSING PLUG REMOVAL, 5" ROCKET - used to remove the 3/4" square drive closing plug on 5" rockets	Letterkenny Army Depot AMXLE-701F
	0222	TOOL, CLOSURE DISC REMOVAL, 5" ROCKET MOTORS - used to remove the front closure disc	Savanna Depot Activity AMXSV-7506A
	0293	TOOL, CLOSING PLUG REMOVAL - used for removing closing plugs on 5" rockets with 1/2" square drive plugs	Letterkenny Army Depot AMXLE-7010G
FSC 1340 Rockets Com- ponent - Primer Detonators	0472	TOOL, DETONATOR REMOVAL - presses out the detonator from the detonator housing on 3.5" rockets	Fort Wingate Depot Activity AMXFW-7010B FWAD 896
FSC 1340 Rockets Com- ponent - Ignitors	0114	FIXTURE, HOLDING - used to hold the MK 165 MODS 0, 1 igniters	Anniston Army Depot AMXAN-7012A
FSC 1340 Rockets Com- ponent - Safety Clips	0117	SHORTING CLIP - used to short the 5" Zuni rocket motor by installing clip over contact band and detent groove as rocket motor is removed from launcher tube	Naval Ammunition Production Engineering Center NAPEC Dwg 0079

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1340 Rockets Com- ponent - Launcher	0237	<u>FIXTURE, ROCKET LAUNCHER</u> - used for seating the aft end cover of the 66mm rocket launcher	Red River Army Depot AMXRR-6708I
	0291	<u>DIE, 66MM ROCKET TRIGGER COVER</u> - retainer clip die for 66mm rocket trigger cover	Red River Army Depot AMXRR-6905A
FSC 1340 Rockets Com- ponent - Warhead	0115	<u>WRENCH, PLUG, MK 2, 3</u> -used to remove nose shipping plugs on 5" rocket warheads MK 6 mods 1, 4	Naval Ammunition Production Engineering Center ALPEC Dwg 328-H-22
	0450	<u>WRENCH, TORQUE, WARHEAD</u> - used to assemble the WDU-4A/A warhead to the 2.75" rocket motor	Red River Army Depot AMXRR-7507A Local Dwg PE-5831
	0494	<u>KIT, DISASSY, 5" ROCKET HEAD</u> - used for disassy of 5" rocket heads MK 25	Seneca Army Depot AMXSE-7211A
	0551	<u>FIXTURE, 2.75" ROCKET WARHEAD AND MOTOR TORQUE</u> - used to torque rocket warhead to motor without a fuze installed	Red River Army Depot RRAD 1030647
	0594	<u>WRENCH, FUZE (FLAT TYPE W/INSERTS)</u> - used to install and remove the ogive nose on a rocket head	Naval Ammunition Production Engineering Cente NAPEC 0411-15
FSC 1340 Rockets Com- ponent - Motor	0074	<u>TOOL, REMOVAL, FRONT CLOSURE SUBASSY</u> - used to remove the front closure subassembly during demil of 5" rocket motor MK 10	Hawthorne Army Ammunition Plant NAD Hawth RDD-1-29-79
	0089	<u>DOLLY HAWK MISSILE</u> - hold & transport missile	Red River Army Depot DWG 1050949

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1340 Rockets Com- ponent - Motor -- Continued	0166	<u>TRAY, HOLDING</u> - used for holding "inert" 3.5" M29A2 motors	Letterkenny Army Depot AMXLE-7209A Local # A 70523
	0222	<u>TOOL, CLOSURE DISC REMOVAL</u> <u>5" ROCKET MOTORS</u> - used to remove the front closure disc	Savanna Depot Activity AMXSV-7506A
	0268	<u>HANGER, PAINTING, FOR ROCKET</u> <u>MOTOR</u> - used to suspend the M8 rocket motor for painting items suspended on monorails and run thru a std paint booth	Red River Army Depot AMXRR-6803C
	0273	<u>HANGER, PAINTING FOR ROCKET</u> <u>MOTOR</u> - used to suspend the 5" MK 10 & MODS rocket motors for painting	Red River Army Depot AMXRR-6805E
	0296	<u>HANGER, MONORAIL</u> - suspension device used to hand 2.75" rocket motors from a monorail conveyor	Red River Army Depot AMXRR-7110A
	0477	<u>CRIMPING TOOL, PNEUMATIC</u> - used to tighten rivets on the 3.5" rocket motor	Anniston Army Depot AMXAN-6804B Local Dwg AS-1-68
	0551	<u>FIXTURE 2.75" ROCKET WARHEAD</u> <u>AND MOTOR TORQUE</u> - used to torque rocket warhead to motor without a fuze installed	Red River Army Depot RRAD 1030647
	0620	<u>HOLDING FIXTURE FOR 2.75"</u> <u>ROCKET NOZZLE</u> - used to hold rocket on table while the ground clip is being assem- bled	Red River Army Depot two photo Local Dwg 1050972
	0621	<u>TOOL, SEATING, GROUND CLIP</u> <u>2.75" ROCKET</u> - used to seat the ground clip on 2.75" rocket nozzle	Red River Army Depot one photo Local Dwg 1020601

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1340 Rockets Com- ponent - Motor -- Continued	0622	<u>HANGER FOR 2.75" ROCKET WARHEAD</u> - used to suspend the 2.75" warhead on hooks for overhead conveyor	Red River Army Depot one photo Local Dwg 1020600
FSC 1340 Rockets Com- ponent - Tube Closure	0154	<u>WRENCH, CLOSURE NUT</u> - used to remove the closure nut on JATO 14DS1000, MK 4 MOD 2	Savanna Depot Activity AMXSV-6808A
FSC 1340 Rockets Com- ponent - Shorting Clips & Plugs	0117	<u>SHORTING CLIP</u> - used to short the 5" Zuni rocket motor by installing clip over contact band and detent, groove as rocket motor is removed from launcher tube	Naval Ammunition Production Engineering Center napec dwg 0079
FSC 1340 Rockets Com- ponent - Boosters	0070	<u>TOOL, BOOSTER CUP REMOVAL</u> - used to remove the booster assembly from the warhead following washout of the explosive cavity in the MK 25 rocket warhead	Hawthorne Army Ammunition Plant NAD Hawthorne SA 2458829
	0072	<u>WRENCH, BOOSTER CASE COVER</u> - used to remove the booster case cover when the booster assembly cannot be removed with the booster cup removal tool for the MK 32 rocket warhead	Hawthorne Army Ammunition Plant NAD Hawthorne SA 2458044
	0471	<u>TOOL, BOOSTER CUP MILL</u> - used to mill the top of booster cup for 3.5" rocket fuze	Fort Wingate Depot Activity AMXFW-7010A
	0473	<u>TOOL, BOOSTER CUP REMOVAL</u> - used for removal of booster cup and booster from holder assembly on 3.5" rockets	Fort Wingate Depot Activity AMXFW-7012A
	0529	<u>FIXTURE, ROCKET FUZE</u> - used to remove boosters from the M404 3.5" rocket fuzes (ac- cessory to APE 1002)(remote control only)	Savanna Depot Activity AMXSV-7203A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1340 Rockets Com- ponent - Shipping Plug	0073	<u>WRENCH, NOSE SHIPPING PLUG</u> - used to remove the nose ship- ping plug and gasket during demil of the MK 25 rocket warhead	Hawthorne Army Ammunition Plant NAD Hawthorne SA 2458061
	0099	<u>ADAPTER REMOVAL DEVICE</u> - used for removal of adapter assem- bly and pulling auxiliary detonating fuze on 5"/54 comp C projectile or 4.5" rocket head	Crane Army Ammu- nition Activity Crane Dwg 2932
FSC 1340 Rockets Com- ponent - Ogive	0594	<u>WRENCH, FUZE (FLAT TYPE w/INSERTS)</u> - used to install and remove the ogive nose on a rocket head	Naval Ammunition Production Engineering Center NAPEC 0411-15
FSC 1340 Rockets Com- ponent - Adapters, Nose Adapters Base Adapters	0099	<u>ADAPTER REMOVAL DEVICE</u> - used for removal of adapter assem- bly and pulling auxiliary detonating fuze on 5"/54 comp C projectile or 4.5" rocket head	Crane Army Ammu- nition Activity Crane Dwg 2932
FSC 1340 Rockets Com- ponent - Fiber & Plastic Con- tainers	0550	<u>MACHINE, FIBER CONTAINER TAPING</u> - used to tape fiber container up to 68" long	Red River Army Depot RRAD photo
FSC 1340 Rockets Com- ponent - Metal & Wooden Con- tainers	0088	<u>PULLER, END CAP</u> - used to remove the end cap from M55 - 115mm rocket containers (chemical item)	Lexington-Blue Grass Depot Activity LBAD Dwg 9-157
	0220	<u>TOOL, TEAR STRIP REMOVAL</u> - used with any drill to engage and remove the tear strip from hermetically sealed metal cans (small arms cans, fuze cans, rocket igniters, etc)	Savanna Depot Activity AMXSV-7112A Local Sketch SK-160

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1340 Rockets Com- ponent - Metal & Wooden Con- tainers -- Continued	0324	<u>TOOL - DENT REMOVAL</u> - used for removing dents from 2.75 inch rocket containers and CBU dispensers	Sierra Army Depot AMXSI-6903B
FSC 1340 Rockets Com- ponent - Packing Supports	0441	<u>EQUIPMENT, STUCK ROCKET REMOVAL</u> - used to remove M229 rockets stuck in fiber con- tainers due to adhesive bond between container & horseshoe washer	Tooele Army Depot TEAD SK 82-06F
FSC 1340 Rockets Com- ponent - Slings, Hangers, Restraining Devices	0424	<u>PAINT HANGER, MONORAIL CON- VEYOR</u> - used to hold 5" rockets MK 10 mods from a monorail conveyor for paint- ing in a paint booth	Red River Army Depot AMXRR-6805E
FSC 1340 Rockets Com- ponent - Base Plugs	0067	<u>WRENCH, BASE PLUG</u> - used to remove the case plug from the case base on the MK 25 rocket warhead	Hawthorne Army Ammunition Plant SA 2458058
FSC 1340 Rockets Com- ponent - Initiators	0068	<u>EXTRACTOR, INITIATOR CASE LOCKING PLUG</u> - used to remove the initiator assembly on the MK 25 rocket warhead	Hawthorne Army Ammunition Plant SA 2458800
	0069	<u>WRENCH, INITIATOR, CASE LOCKING PLUG</u> - used to remove the initiator case locking ring prior to removing the initiator case	Hawthorne Army Ammunition Plant NAD Haw (Dwg SA 2458814)
FSC 1340 Rockets Com- ponent - Base	0071	<u>WRENCH, BASE ADAPTER</u> - used to remove the warhead base during disassy of the MK 32 rocket whd	Hawthorne Army Ammunition Plant NAD Hawthorne SA 2458039

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1345 Land Mines Component - Complete Round or Item	0453	<u>EQUIPMENT FOR DISASSY OF MINE M2A4</u> - used to disassemble M2A4 mines for demil. Acces- sory to APE 1001M1 for remote operation	Umatilla Depot AMXUM-6711A
	0492	<u>EQUIPMENT FOR DISASSY OF MINE M2 SERIES</u> - used to remove the cap from mine M2 series. Accessory to APE 1001M1 for remote operation	Seneca Army Depot AMXSE-7202A
FSC 1345 Land Mines Component - Fuze	0209	<u>THREAD CHASING DIE & WIRE BRUSH</u> - used for cleaning fuze adapter on mine, land, gas, VX, M23	Tooele Army Depot AMXTE-6712A
FSC 1345 Land Mines Component - Fuzewell & Liner	0230	<u>FIXTURE, FUZE CAVITY CLEAN- ING</u> - used for cleaning the M605 fuze cavity in M16 series mines	Red River Army Depot AMXRR-6708A
FSC 1345 Land Mines Component - Burster & Wells	0109	<u>BUSHING ADAPTER</u> - used to check the disassembly torque of the bushing in M16 series AP mines	Savanna Depot Activity Sketch only
FSC 1345 Land Mines Component - Mine Body	0180	<u>CAP PULLER, AP MINE</u> - used to pull cap of AP M2 series mines. Used in conjunction with APE 101 remote control	Lexington-Blue Grass Depot Activity AMXLX-6912A
	0193	<u>DEVICE, CLOSING DISC REMOVAL</u> used to remove the closing disc in M3 AP mines by remote control utilizing an air cylinder (remote operation)	-Lexington-Blue Grass Depot Activity AMXLX-7107B
	0307	<u>JAW, HOLDING</u> - used to hold the M2 series mine while mutilating mine case in APE 1002M2 machine	Sierra Army Depot AMXSI-7212A

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1345 Land Mines Component - Boosters	0365	<u>DISASSY MACHINE</u> - a holding fixture for removal of the housing relay booster from the projectile. Used w/APE 1206 and 1001-E001 shield	Lexington-Blue Grass Depot Activity AMXLX-7206A
FSC 1365 Military Chemical Agents Compo- nent - Filler (Explosive, Chemical, Smoke, etc)	0196	<u>MOUNT</u> - mounts the M12A1 de- contamination apparatus for use with a ten ton trailer, & other associated decontamina- tion items such as a quick fill hopper	Lexington-Blue Grass Depot Activity AMXLX-7204A
FSC 1365 Military Chemical Agents Compo- nent - Metal & Wooden Containers	0040	<u>FIXTURE, HANDLING, ONE-TON CONTAINER</u> - used to rotate 1-ton container for valve changes and sample access. Tube replaced by standard APE 1982 ton container, plug & valve replacement equipment	Tooele Army Depot RMA Dwg-E10-7-15
	0617	<u>FORKLIFT ADAPTE FOR M1 LIFT- ING BEAM</u> - used for transfer one-ton container	DACS
FSC 1370 Pyrotechnics Components - Complete Round or Item	0570	<u>CLAMP, OUTER TUBE CRADLE</u> - used to hold the signal while cutting the outer tube for removal of the fuze and ex- pellant assembly	Naval Ammunition Production Engineering Center NAPEC 1344
	0600	<u>FLARE CRADLE</u> - restrains the MK 45-0 flare and orients flare so end to be drilled is facing the end shield	Naval Ammunition Production Engineering Center NAPEC 1264
	0601	<u>FIXTURE, FLARE HOLDING</u> - holds the flare in an up- right position to remove and replace the MK 364 fuze	Naval Ammunition Production Engineering Center NAPEC 1245

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1370 Pyrotechnics Components - Fuze	0558	<u>FIXTURE, FUZE BODY AND GUIDE SHOE</u> - used in the disassembly of the fuze and propellant assembly	Crane Army Ammunition Activity NAD Crane 4770
	0559	<u>TOOL, NUT HAND</u> - used in the disassembly of the fuze and propellant assembly	Crane Army Ammunition Activity NAD Crane 4999
	0560	<u>TOOL, INSULATOR HAND</u> - used in the removal of insulator from the squib and battery assembly	Crane Army Ammunition Activity NAD Crane 5003
	0601	<u>FIXTURE, FLARE HOLDING</u> - holds the flare in an upright position to remove and replace the MK 364 fuze	Naval Ammunition Production Engineering Center NAPEC 1245
FSC 1370 Pyrotechnics Components - Closing Plug	0570	<u>CLAMP, OUTER TUBE CRADLE</u> - used to hold the signal while cutting the outer tube for removal of the fuze and expellant assembly	Naval Ammunition Production Engineering Center NAPEC 1344
FSC 1370 Pyrotechnics Components - Timers	0553	<u>RAM AND HOLDER</u> - used to hold upper carrier assembly for removing the timer by pressing out with arbor press ram	Naval Ammunition Production Engineering Center NAPEC Dwg 1347
FSC 1370 Pyrotechnics Components - Firing Devices	0398	<u>FIXTURE, TRIP FLARE ASSEMBLY</u> - used to assemble the firing mechanism to the M49A1 trip flare (springs, levers, striker assemblies)	Red River Army Depot AMXRR-6701AA
FSC 1370 Pyrotechnics Components - Ogive	0554	<u>PULLER, OUTER TUBE NOSE</u> - used to pull the nose end of the signal from the outer tube	Naval Ammunition Production Engineering Center NAPEC Dwg 1348

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1370 Pyrotechnics Components - Ogive -- Continued	0555	<u>PULLER, UPPER CARRIER NOSE</u> - used to pull the signal nose from the upper carrier assem- bly	Naval Ammunition Production Engineering Center NAPEC Dwg 1349
	0556	<u>TOOL, UPPER CARRIER REMOVAL</u> - used to remove the upper carrier from the outer tube	Crane Army Ammu- nition Activity NAD Crane 5505
FSC 1370 Pyrotechnics Components - Work Table, Bench, etc	0090	<u>TABLE, STANDARD</u> - standard table used for the repack of MK 24 mods 3 & 4 A/C flares	Crane Army Ammu- nition Activity NAD Crane Dwg 3333
FSC 1375 Demolition Materials Component - Fuzewell & Liner	0156	<u>TOOL, BORE BRUSH</u> - used to hold cal .30 and .50 cal bore brushes to clean det- onator wells for Bangalore torpedoes and demolition charges	Letterkenny Army Depot AMXLE-7007I
FSC 1375 Demolition Materials Component - Firing Devices	0153	<u>TOOL, EXERCISING, FIRING DEVICE</u> - used to exercise firing device, demolition, pull-release, type M3	Savanna Depot Activity AMXSV-6805B
	0260	<u>SHIELD, FIRING DEVICE</u> - pro- vides a flash tube when work- ing on firing devices	Red River Army Depot AMXRR-6801B
	0283	<u>GAGE, GO-NO-GO FIRING DEVICE</u> - go-no-go gage for use on the M3 firing device	Red River Army Depot AMXRR-6810C
	0284	<u>FIXTURE, HOLDING, FIRING DEVICE</u> - used to hold the M3 firing device for a hand reaming operation	Red River Army Depot AMXRR-6810D
	0285	<u>TOOL, SPACING, FIRING DEVICE</u> - used for spacing the firing pin slots on M3 firing device	Red River Army Depot AMXRR-6810E

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1375 Demolition Materials Component - Firing Devices --Continued	0287	<u>REAMER</u> - used with a stop and guide to ream the body of the M3 firing device	Red River Army Depot AMXRR-6811B
FSC 1375 Demolition Materials Component - Blasting Caps	0101	<u>SHEILD, ELECTRIC BLASTING CAP TESTING</u> - protects oper- ator during testing of elec- tric blasting caps	Savanna Depot Activity un-numbered sketch
FSC 1375 Demolition Materials Component - Linear Charge	0168	<u>FIXTURE, DEMIL</u> - used for demil of chg demolition linear, M2A1 & M3 by cutting rolled edge of charge con- tainer	Letterkenny Army Depot AMXLE-7303A
FSC 1376 Bulk Explo- sives Com- ponent - Propellant & Holders	0427	<u>AIR TEST LID</u> - used for con- ducting an air test on powder cans in storage	Red River Army Depot AMXRR-6711H
FSC 1376 Bulk Explo- sives Com- ponent - Filler (Ex- plosive, Chemical, Smoke, etc)	0257	<u>TOOL, FLUME CLEANING</u> - shovel used for cleaning flume in the APE 1300 washout plant	Red River Army Depot AMXRR-6712E
FSC 1376 Bulk Explo- sives Com- ponent - Metal & Wooden Con- tainers	0250	<u>FIXTURE, AIR TEST</u> - used for air test of powder cans with a spider type lid	Red River Army Depot AMXRR-6711H
FSC 1376 Bulk Explo- sives Com- ponent - Propellant Charge Con- tainers	0159	<u>TOOL, AIR TEST</u> - used to air test bulk powder containers	Letterkenny Army Depot AMXLE-7010D Local Dwg D-150

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1376 Bulk Explo- sives Com- ponent - Propellant Charge Con- tainers -- Continued	0511	<u>TOOL, AIR TEST PLUG</u> - used to remove air test plugs on pro- pellant charge containers	Letterkenny Army Depot AMXLE-7007H
	0514	<u>TOOL, AIR TEST</u> - used for air testing of small powder con- tainers	Letterkenny Army Depot AMXLE-7010E
FSC 1377 Cartridge Actuated De- vices/Propel- lant Actuated Devices Com- ponent - Initiators	0112	<u>FIXTURE, FUNCTION TEST, IGNITER</u> - fixture used in conducting a surveillance function test of ignition cylinders flamethrower, M1	Anniston Army Depot AMXAN-7011A
	0139	<u>FIXTURE, FUNCTION TEST, IGNITER</u> - fixture used in conducting a surveillance function test of ignition cylinders flamethrower, M1	Pueblo Depot Activity AMXPU-7202A
FSC 1390 Fuzes & Primers Component - Complete Round or Item	0383	<u>TORQUE WRENCH ADAPTER</u> - used to torque M500 series, and M519, M521, M524, M526 mortar fuzes	Red River Army Depot AMXRR-6701F Local Dwg 1020459
FSC 1390 Fuzes & Primers Component - Primer	0299	<u>DEVICE, FIRING PIN, PRIMER TESTING</u> - used in conjunction with APE 1931 to test fire M92 primers	Red River Army Depot AMXRR-7312A
	0300	<u>DEVICE, FIRING PIN, PRIMER TESTING</u> - used in conjunction with APE 1931 to test fire M38 primers	Red River Army Depot AMXRR-7312B
	0301	<u>DEVICE, INSPECTIN, PRIMER</u> - inspection mirror for use in inspecting the M58 primer	Red River Army Depot AMXRR-7401A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
1390 Fuzes & Primers Component - Primer -- Continued	0332	<u>ADAPTER, PRIMER TORQUE TEST</u> - used with an approved torque wrench for testing M58 primer torque in 90mm ctg cases	Sierra Army Depot AMXSI-7010A
	0372	<u>DRILL GUIDE AND PRIMER REMOVER</u> - used for removal and replacement of the M29A1 primer assembly for the M501 series fuze	Pueblo Army Depot AMXPU-6911A
	0373	<u>PRIMER INSERTER</u> - used for installing new M29A1 primer in M501 fuze	Pueblo Army Depot AMXPU-6911B
	0374	<u>PRIMER STAKING GUIDE</u> - used for staking new M29A1 primer assemblies in M501 fuze	Pueblo Army Depot AMXPU-6911C
	0479	<u>PRIMER TESTER HOLDER</u> - used for function testing of primer assy M29A1 (augments APE 1931)	Anniston Army Depot AMXAN-7312A
FSC 1390 Fuzes & Primers Component - Fuzes	0125	<u>MACHINE, STAKING</u> - used for staking of M520 series fuze assemblies	Anniston Army Depot AMXAN-7210A
	0127	<u>FIXTURE, POSITIONING</u> - used to position paint & heat shields on VT fuzes prior to coating	Anniston Army Depot AMXAN-7407A Local Dwg E-27-74
	0132	<u>TOOL, BOOSTER REMOVAL</u> - used to deboost the M514, M517 VT fuzes by use of a hand wheel. Augments APE 1196	Letterkenny Army Depot AMXLE-6905E Local Dwg D-70258 & one photo
	0138	<u>WISE, AIR ACTIVATED, POR-TABLE</u> - used to hold and turn fuze for removing the detonator housing	Fort Wingate Depot Activity AMXFW-7011A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Fuzes -- Continued	0140	<u>FIXTURE, STAKING</u> - fixture used for staking lower cap to fuze body of fuze MTSQ M52 series	Pueblo Depot Depot AMXPU-7304A
	0142	<u>DEBOOSTERING DEVICE</u> - aug- ments APE 1002M2 to perform a remote booster removal operation on bomb V.T. fuzes	Letterkenny Army Depot AMXLW-6902A Local Dwg A-70399
	0145	<u>TOOL, RETAINING RING REMOVAL-</u> used to remove retaining rings from V.T. fuze boosters to remove pellet charges	Letterkenny Army Depot AMXLE-6905J
	0173	<u>THREAD DIE, FUZE THREAD CLEANING</u> - used for cleaning fuze threads on M52 series fuzes for 60mm and 81mm mortar	Letterkenny Army Depot AMXLE-7003D Local Dwg A-70399
	0174	<u>THREAD DIE, FUZE THREAD CLEANING</u> - used for cleaning fuze threads on fuze, P.D. M51, M500 series, and M557	Letterkenny Army Depot AMXLE-7003E Local Dwg A-70404
	0181	<u>HOLDER, FUZE STAKING & DRILLING</u> - holds M500 series fuzes for drilling stakes from fuze and for staking fuze	Letterkenny Army Depot AMXLE-6907C
	0197	<u>WRENCH, BOOSTER ASSEMBLY</u> - used for assembling booster assy of M90A1 fuze	Lexington-Blue Grass Depot Activity AMXLX-7303A
	0198	<u>THREAD CHASER</u> - used to chase thread for booster cavity on the M90A1 fuze	Lexington-Blue Grass Depot Activity AMXLX-7303B
	0199	<u>TOOL, CLEANING</u> - used for cleaning bottom of M56 stab primer of M90 fuze	Lexington-Blue Grass Depot Activity AMXLX-7303C

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Fuzes -- Continued	0200	TOOL, <u>FACING</u> - used on the M56 stab primer for the M90A1 fuze	Lexington-Blue Grass Depot Activity AMXLX-7303D
	0202	TOOL, <u>PRIMER REMOVAL</u> - used for removal of M56 stab pri- mer of M90A1 fuze (shielded operation)	Lexington-Blue Grass Depot Activity AMXLX-7303F
	0205	<u>CLEANING FIXTURE, FUZE OGIVE-</u> used to clean the ogive of the M57 PD fuze	Lexington-Blue Grass Depot Activity AMXLX-7401A
	0248	<u>THREAD CHASER, FUZE</u> - used to dress the threads on M48A3 and M572 fuzes	Red River Army Depot AMXRR-6711F
	0269	<u>WRENCH, TORQUE ADAPTER</u> - used to assemble, disassemble and torque test the M503 P.D. fuze (57mm)	Red River Army Depot AMXRR-6804F
	0282	<u>WRENCH, TORQUE ADAPTER</u> - used for torque test of MK 27 fuze used on 40mm projectile (used in conjunction of APE 1065 or 1204)	Red River Army Depot AMXRR-6810B
	0309	<u>CLEANING DEVICE, FUZE</u> - used to clean artillery fuzes. Similar to APE 1243	Seneca Army Depot AMXSE-6702
	0311	<u>DRILL PRESS W/PLEXIGLASS SHIELD</u> - used for drilling stake marks from booster to fuze assy	Seneca Army Depot AMXSE-6803J
	0313	<u>ADAPTER, TORQUE, FUZE HEAD ASSEMBLY</u> - used to torque the M557 fuze head to the flash tube	Seneca Army Depot AMXSE-6803F
	0314	<u>FIXTURE, TORQUE, FUZE BOOSTER-</u> used to test the disassembly torque of the booster to the fuze	Seneca Army Depot AMXSE-6803E

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Fuzes -- Continued	0318	<u>WRENCH, FUZE</u> - used to loosen the MK 312 MOD O, 2 fuze while warhead section is in lower half of shipping container	Sierra Army Depot AMXSI-6901C
	0369	<u>MACHINE, BOOSTER REMOVAL</u> - used to deboost M51A5 fuzes that cannot be deboosted in APE 1118	Pueblo Depot Activity AMXPU-6712A Local Dwg OAC 109-114
	0372	<u>DRILL GUIDE AND PRIMER REMOVER</u> - used for removal and replacement of the M29A1 primer assembly for the M501 series fuze	Pueblo Army Depot AMXPU-6911A
	0373	<u>PRIMER INSERTER</u> - used for installing new M29A1 primer in M501 fuze	Pueblo Army Depot AMXPU-6911B
	0374	<u>PRIMER STAKING GUIDE</u> - used for staking new M29A1 primer assemblies in M501 fuze	Pueblo Army Depot AMXPU-6911C
	0406	<u>ADAPTER, TORQUE WRENCH</u> - used to torque the M500 series, M519, M524, M526, M572 fuze to their boosters	Red River Army Depot AMXRR-6701AJ Local Dwg 1020459
	0408	<u>SCALE, DIAL INDICATING, OVER-UNDER</u> - used to weigh M572 epoxy filled fuzes	Red River Army Depot AMXRR-6701AL
	0416	<u>TORQUING FIXTURE</u> - used with a standard torque wrench when necessary to torque fuze heads on mortar fuze bodies	Red River Army Depot AMXRR-6707E
	0485	<u>GAGE, FUZE</u> - used to gage the M557 fuze assembly	Seneca Army Depot AMXSE-6803B
	0505	<u>HOLDER, FUZE</u> - holds fuze while removing excess tetryl from the base of the fuze	Letterkenny Army Depot AMXLE-6907F

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Fuzes -- Continued	0512	<u>BARRICADE, FUZE</u> - used for deboosting V.T. fuzes	Letterkenny Army Depot AMXLE-7008B
	0518	<u>TOOL, FUZE REMOVAL</u> - used to remove the M90A2 fuze from the rubber collet of the wrench head of APE 1153 ver- tical disassy machine	Letterkenny Army Depot AMXLE-7108A
FSC 1390 Fuzes & Primers Component - Windshield	0183	<u>HOLDER, FUZE</u> - used to hold the M48, M51 series M557 fuzes while tightening loose windshields	Letterkenny Army Depot AMXLE-6910A
	0185	<u>HOLDER, FUZE</u> - used to hold the M48, M51 series M557 fuzes while staking the windshield to the head assy	Letterkenny Army Depot AMXLE-6910C
	0401	<u>FUZE NEST</u> - nest for drilling the windshield of M51A5 fuze for conversion to M572 fuzes	Red River Army Depot AMXRR-6701AF Local Dwg 1050778
	0407	<u>EQUIPMENT, EPOXY DISPENSING</u> - used to epoxy fill the wind- shield of converted M572 fuzes	Red River Army Depot AMXRR-6701AK
FSC 1390 Fuzes & Primers Component - Fuzewell & Liner	0322	<u>TOOL, HAND, FUZE SEAT LINER</u> - used to remove the shallow fuze seat liners from various projectiles	Sierra Army Depot AMXSI-6902D
	0323	<u>ADAPTER, PLUG & LINER REMOVAL</u> - used to remove nose plugs and fuze seat liners from projectiles by remote control	Sierra Army Depot AMXSI-6902E

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Body	0456	<u>FIXTURE, PAINT MASK REMOVAL</u> - used in removing painting masks from proximity fuzes on static fuze lines	Tooele Army Depot AMXTE-7401A
FSC 1390 Fuzes & Primers Component - Adapter Booster	0133	<u>TOOL, BOOSTER ADAPTER</u> - used to remove the booster adapter from artillery rounds with 2" threads	Letterkenny Army Depot AMXLE-6703A Local Dwg B-70261
FSC 1390 Fuzes & Primers Component - Boosters	0132	<u>TOOL, BOOSTER REMOVAL</u> - used to deboost the M514, M517 VT fuzes by use of a hand wheel. Augments APE 1966	Letterkenny Army Depot AMXLE-6905E Local Dwg 70258 & 1 photo
	0142	<u>DEBOOSTERING DEVICE</u> - aug- ments APE 1002M2 to perform a remote booster removal operation on bomb V.T. fuzes	Letterkenny Army Depot AMXLE-6902A Local Dwg A-70337
	0197	<u>WRENCH, BOOSTER ASSEMBLY</u> - used for assembling booster assembly of M90A1 fuze	Lexington-Blue Grass Depot Activity AMXLX-7303A
	0198	<u>THREAD CHASER</u> - used to chase thread for booster cavity on the M90A1 fuze	Lexington-Blue Grass Depot Activity AMXLX-7303B
	0316	<u>TOOL, BOOSTER REMOVAL</u> - used with a brace or ratchet for hand removal operation. Can be adapted for remote opera- tion on M21A4 boosters	Seneca Army Depot AMXSE-6907A
	0369	<u>MACHINE, BOOSTER REMOVAL</u> - used to deboost M51A5 fuzes that cannot be deboosted in APE 118	Pueblo Depot Activity AMXPU-6712A Local Dwg OAC-109-114

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Boosters -- Continued	0380	<u>DEBOOSTERING MACHINE, FUZE</u> - used on fuzes that are diffi- cult to deboost in APE 1118 (mortar fuzes 60mm & 81mm)	Red River Army Depot AMXRR-6701C Local Dwg 1050741
	0382	<u>WRENCH, DEBOOSTERING</u> - used for deboosting M500 & M51A5 fuzes	Red River Army Depot AMXRR-6701E Local Dwg 1020428
	0399	<u>NEST, ARTILLERY FUZE</u> - nest used for holding fuzes while drilling stakes on M500 series fuze booster adapter	Red River Army Depot AMXRR-6701AB Local Dwg 1030518
	0403	<u>FUZE NEST</u> - used for staking M572 fuze and booster assy	Red River Army Depot AMXRR-6701AG Local Dwg 1020511
	0505	<u>HOLDER, FUZE</u> -holds fuze while removing excess tetryl from the base of the fuze	Letterkenny Army Depot AMXLE-6907F
	0521	<u>EQUIPMENT, STAKING, BOOSTER CUP</u> - used for staking boo- ster cup of M125A1 booster to the booster body	Savanna Depot Activity AMXSV-6708A
FSC 1390 Fuzes & Primers Component - Closing Screw	0147	<u>FIXTURE, CLOSING SCREW REMOVAL</u> - used for removal of closing screw on P.D. M48, M51, M557 P.D. fuzes	Savanna Depot Activity AMXSV-6712A
	0184	<u>WRENCH, BOTTOM CLOSING SCREW</u> - used to assemble or disassemble the bottom clo- sing screw from the fuze body on M48, M51, M557 fuzes	Letterkenny Army Depot AMXLE-6910B
	0212	<u>FIXTURE, CLOSING SCREW REMOVAL</u> - used to remove the closing screw from M48, M51, M551 fuzes	Red River Army Depot AMXRR-6701AC

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Closing Screw --Continued	0261	<u>FIXTURE, CLOSING SCREW REMOVAL</u> - used for removal of closing screw from body of M48, M51, M557, M572 fuzes	Red River Army Depot AMXRR-6801D
	0277	<u>FIXTURE, HOLDING, FUZE</u> - used to hold fuze while drilling stakes on bottom closing screw of artillery fuzes	Red River Army Depot AMXRR-6806A
	0320	<u>AIR OPERATED DRILL PRESS</u> - used for drilling stakes (booster to fuze) (closing screw) on artillery fuzes	Sierra Army Depot AMXSI-6902B
FSC 1390 Fuzes & Primers Component - Head Assembly	0186	<u>TOOL, HEAD ASSEMBLY</u> - used to remove/assemble fuze heads from flash tubes	Letterkenny Army Depot AMXLE-6910D
	0272	<u>WRENCH, TORQUE ADAPTER</u> - used to torque the fuze head assy to the flash tube on M48, M51, M557, M572 fuzes	Red River Army Depot AMXRR-6805C
FSC 1390 Fuzes & Primers Component - Delay Plungers	0265	<u>DEVICE, TESTING, DELAY PLUNGER</u> - drop test device for the M1 delay plunger used in M48A3, M51 series, M557 series, M572 fuze	Red River Army Depot AMXRR-6802D
FSC 1390 Fuzes & Primers Component - Ogive	0205	<u>CLEANING FIXTURE, FUZE OGIVE-</u> used to clean the ogive of the M57 PD fuze	Lexington-Blue Grass Depot Activity AMXLX-7401A
	0304	<u>RESIZING DIE, OGIVE</u> - used for resizing the ogive on fuze P.I. M90A1	Red River Army Depot AMXRR-7401A

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Percussion Primers	0199	<u>TOOL, CLEANING</u> - used for cleaning bottom of M56 stab primer of M90 fuze	Lexington-Blue Grass Depot Activity AMXLX-7303C
	0200	<u>TOOL, FACING</u> - used on the M56 stab primer for the M90A1 fuze	Lexington-Blue Grass Depot Activity AMXLX-7303D
	0202	<u>TOOL, PRIMER REMOVAL</u> - used for removal of M56 stab primer from M90A1 fuze (shielded opn)	Lexington-Blue Grass Depot Activity AMXLX-7303F
FSC 1390 Fuzes & Primers Component - Adapters - Nose Adap- ters, Base Adapters	0540	<u>HOLDING RING SOCKET</u> - used to assemble & torque the holding ring to the cvt fuze and adapter assy MK357 thru 362, MK365 thru 367, MK369 thru 371	Naval Sea System Command NAV ORD Dwg 2494141
FSC 1390 Fuzes & Primers Component - Fiber & Plastic Con- tainers	0321	<u>EQUIPMENT, FUZE CONTAINER MODIFICATION</u> - used for modi- fication of upper and lower styrofoam fuze packaging containers by putting vent holes in containers utilizing soldering irons and tips	Sierra Army Depot AMXSI-6902C
	0404	<u>PRESS, PUNCH</u> - used for punching circulation holes in packing materials for M572 fuze	Red River Army Depot AMXRR-6701H Local Dwg 1050789
	0405	<u>PUNCH & DIE SET</u> - used for punching packing material for M572 fuze (hardwood punch)	Red River Army Depot AMXRR-6701A1 Local Dwg 1050790

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Metal & Wooden Containers	0191	<u>HOLDING JIG, METAL CAN</u> - used to hold M8, M10, M21 small arms packs and also standard contour fuze metal cans while removing tear strips	Letterkenny Army Depot AMXLE-7007C
	0220	<u>TOOL, TEAR STRIP REMOVAL</u> - used with any drill to engage and remove the tear strip from hermetically sealed metal cans (small arms cans, fuze cans, rocket ignites, etc)	Savanna Depot Activity AMXSV-7112A Local Sketch SK 160
FSC 1390 Fuzes & Primers Component - Metal & Plastic Containers -- Continued	0484	<u>STRAPPER & SEALER FOR 1 1/4"</u> <u>STRAPS</u> - used to strap pallet and unit loads of boxed ammunition and components	Seneca Army Depot AMXSE-6803A
FSC 1390 Fuzes & Primers Component - Metal Fuze Containers	0182	<u>TEAR STRIP REMOVER</u> - used to remove the metal tear strips on fuze containers	Letterkenny Army Depot AMXLE-6907D
	0191	<u>HOLDING JIG, METAL CAN</u> - used to hold M8, M10, M21 small arms packs and also standard contour fuze metal cans while removing tear strips	Letterkenny Army Depot AMXLE-7007C
	0220	<u>TOOL, TEAR STRIP REMOVAL</u> - used with any drill to engage and remove the tear strip from hermetically sealed metal cans (small arms cans, fuze cans, rocket igniters, etc)	Savanna Depot Activity AMXSV-7112A Local Sketch SK-160

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1390 Fuzes & Primers Component - Retaining Clips	0145	<u>TOOL, RETAINING RING REMOVAL-</u> used to remove retaining rings from V.T. fuze boosters to remove pellet charges	Letterkenny Army Depot AMXLE-6905J
FSC 1390 Fuzes & Primers Component - Dummy Nose Plug or Nose Plug	0323	<u>ADAPTER, PLUG & LINER REMOVAL-</u> used to remove nose plugs and fuze seat liners from projec- tiles by remote control	Sierra Army Depot AMXSI-6902E
FSC 1390 Fuzes & Primers Component - Booster Pel- or Cup	0188	<u>TOOL, PELLET CHARGE REMOVAL -</u> used to remove the pellet charge from M513, M514 V.T. fuze by remote control	Letterkenny Army Depot AMXLE-7001B
	0521	<u>EQUIPMENT, STAKING BOOSTER -</u> <u>CUP</u> - used for staking boo- ster cup of M125A1 booster to the booster body	Savanna Depot Activity
FSC 1336-1338 Missile Ammunition Component - Complete Round or Item	0375	<u>FIXTURE, HOLD DOWN</u> - used for static firing demilitar- ization of "entac" missiles	Pueblo Depot Activity AMXPU-6912A Local Dwg EXCEL 4387
FSC 1336-1338 Missile Ammunition Component - Fin & Fin Kits	0288	<u>TOOL, INSERTION & SEPARATION</u> <u>FIN BRACKET</u> - used for inser- ting and separating of the fin bracket dust cover (boot) on the chaparral missile guidance section	Red River Army Depot AMXRR-6811C
	0433	<u>CART, HANDLING, CHAPARRAL</u> <u>MISSILE FINS</u> - used to hold and transport chaparral mis- sile fins and wings during painting operations	Red River Army Depot AMXRR-6804C Local Dwg 1050857

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1336-1338			
Missile Ammunition Component - Warhead	0239	<u>FIXTURE, WARHEAD</u> - used for bonding of the hawk warhead assures alignment of inserts and prevents movement during curing of adhesive	Red River Army Depot AMXRR-6708K
	0432	<u>CART, HANDLING, WARHEAD</u> - used to hold and transfer the chaparral missile warhead and target detection section during painting operations	Red River Army Depot AMXRR-6804B Local Dwg 1050856
	0557	<u>DEVICE, NIKE HERCULES WAR-HEAD HANDLING</u> - used to move the M17A1 warhead between bays in an operating building	Letterkenny Army Depot LEAD 0557
FSC 1336-1338			
Missile Ammunition Component - Motor	0089	<u>DOLLY FOR HAWK MISSILE</u> - used to hold and transport the missile	Red River Army Depot RRAD Dwg 1050949
	0276	<u>FIXTURE, SCREW REMOVAL</u> - used for removing forward hanger from chaparral motor	Red River Army Depot AMXRR-6805J
	0278	<u>HOLDING DEVICE</u> - holds motor while performing continuity tests	Red River Army Depot AMXRR-6806B
	0289	<u>SHORTING BLOCK, MISSILE MOTOR</u> - used to short the firing squib and the motor body on the chaparral missile while body is being modified in a lathe	Red River Army Depot AMXRR-6902A
	0371	<u>LIFTING DEVICE, M42 CLUSTER MOTOR</u> - used to handle the Nike-Hercules M42 cluster motor in an unpacked configuration	Pueblo Depot Activity AMXPU-6901A
	0435	<u>CART, HANDLING, CHAPARRAL MOTOR</u> - used to hold and transport the chaparral missile motor section during painting operations	Red River Army Depot AMXRR-6804E Local Dwg 1050854

AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 1336-1338 Missile Ammunition Component - Missile Containers	0461	<u>LIFTING BEAM, M30 MOTOR</u> - used for lifting the lids on the M30 (Hercules) rocket motor container	Sierra Army Depot AMXSI-6903A
	0240	<u>PRESS, PUNCH, HYDRAULIC, PORTABLE</u> - used for elonga- tion of the stacking pad container bracket on the XM430 container (HAWK missile)	Red River Army Depot AMXRR-6709A
	0251	<u>DEHUMIDIFIER, MISSILE CON- TAINER</u> - used for removing moisture when pressurizing a missile container	Red River Army Depot AMXRR-67111
FSC 1336-1338 Missile Ammunition Component - S&A Device	0302	<u>OPERATIONAL SHIELD, TESTING</u> - used for electrical test of the M100 S&A device for the improved HAWK missile	Red River Army Depot AMXRR-7405A
FSC 1336-1338 Missile Ammunition Component - Guidance & Control	0434	<u>CART HANDLING, CHAPARRAL G&C-</u> used to hold and transport the Chaparral missile guid- ance and control section during painting operations	Red River Army Depot AMXRR-6804D Local 1050855
FSC 4925 Ammunition Peculiar Equipment Component - Complete Round or Item	0279	<u>TOW CART, MODIFICATION</u> - adds a dead man braking system to the APE 1104 cart	Red River Army Depot AMXRR-6807A
FSC 4925 Ammunition Peculiar Equipment Component - Cartridge Extension	0542	<u>EQUIP, DISASSY, STRIKER NUT & CNTR EXTENSION</u> - accessory to APE 1210 to remove frozen ctg cntr extensions and frozen striker nuts	Caerwent Depot Activity AERUK-7710A

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AMMUNITION ITEM AND COMPONENT	NON- STANDARD APE NO.	NOMENCLATURE - DESCRIPTION OR PURPOSE	DESIGN ACTIVITY IDENTIFICATION NO.
FSC 4925 Ammunition Peculiar Equipment Component - Fiber & Plastic Containers	0149	<u>LID PULLER, FIBER CONTAINERS,</u> <u>ARTILLERY AMMUNITION - modi-</u> fication kit to APE 1003 to pull a single lid	Savanna Depot Activity AMXSV-6705A
FSC 4925 Ammunition Peculiar Equipment Component - Bulk Propel- lant Powder	0194	<u>FIXTURE, PROPELLANT SETTling-</u> attachment to APE 2020 to settle propellant	Lexington-Blue Grass Depot Activity AMXLX-7107C

APPENDIX A DELETED ITEMS

The following Ammunition Peculiar Equipment are deleted items. They are not to be used in ammunition operations; they are superseded, obsolete or are no longer required.

APE Number	Items
APE 1005	Primer Press Machine
APE 1006	Debagging Machine
APE 1007	Heat Exchanger
APE 1008	Ammunition Projectile Cart
APE 1008A	Ammunition Complete Round Cart
APE 1008B	Ammunition Small Items Cart
APE 1009M4.....	Furnace, Deactivation
APE 1012	Flashing Furnace
APE 1013	Explosive Washout Plant
APE 1014	Pickling Unit, 6-Tank
APE 1015	Pickling Unit, 9-Tank
APE 1016	Deactivation Furnace Facility
APE 1017	Washout Facility
APE 1018	Bomb Head Break Off Machine
APE 1019	Propellant Beaker
APE 1020	Bomb Washout Fixture
APE 1023	Paint Spray Booth
APE 1026	Fuze Removing Machine, 37-MM M56 PD Fuze
APE 1027	Priming and Depriming Machine, Fulcrum Lever Type
APE 1030M1.....	Machine Powered Strapping
APE 1031	Warm Air Makeup System
APE 1033	Marking Machine
APE 1034	Box Repair Machine
APE 1038	Doors, Armor Plate, BSR
APE 1040	Storage Hopper
APE 1041	Pitch in Protective Barricade
APE 1046	Small Arms Brass Storage Tank
APE 1047	Mutilation Machine
APE 1048	Abrasive Blast Machine
APE 1049	Vacuum Collection System
APE 1050	Machine, Rotary Heating
APE 1051	Centrifugal Pump for Washout System
APE 1052M1.....	Kit, Air Test
APE 1053	Crimping Machine, M1 and M2 Detonators
APE 1054	Vacuum Collection System
APE 1057	Retainer Ring Wrench, M15 Land Mines
APE 1058	Monorail Tow Conveyor
APE 1059	Disassembly Machine, M52A2 Fuze
APE 1060	Barricade Doors, Sliding Type
APE 1062	Defuzing and Torquing Machine, M26 Hand Grenade

APE Number	Items
APE 1063	Ammunition Surveillance Workshop
APE 1064	Breakdown Machine, 20-MM
APE 1067	Normal Maintenance Building
APE 1068	Preservation Building
APE 1071	Equipment Layout, RRA Building No. 10
APE 1073	Device, Propellant Collection
APE 1074	Alinement Gage for Vertical Pull Apart Machine
APE 1075	Monorail Conveyor System
APE 1076	Sump Pump
APE 1077	Care and Preservation Building Doors
APE 1078	Flat Belt Powered Conveyor, 18-inch
APE 1079	Loading System, Trolley Conveyor
APE 1080	Unloading System, Trolley Conveyor
APE 1081	Trolley Conveyor System Guides
APE 1082	Melt Unit Grid
APE 1083	Signal Renovation Equipment, M127
APE 1084	Slide Valve, Non Sparking
APE 1085	Small Arms Demilitarization Plant
APE 1087	Fuze Assembly Machine, M52A2 Fuze
APE 1089	Electronic Removal of Explosives
APE 1090	Surveillance Function Test Equipment
APE 1091	Concentricity Plug Gage
APE 1092M1.....	System, Paint Spray, Stationary
APE 1093M1.....	Machine, Paint Spray, Portable
APE 1094	Debelting Machine
APE 1095	Conveyor Sections, 18-inch
APE 1096	Inert Brass Cooler
APE 1097	Primer Drill Out Machine
APE 1098	Declipper, Hand, 5-Round
APE 1100	Monorail System
APE 1101	Piping, Vacuum Collection System
APE 1102	Primer Punch Out Machine
APE 1103	Cyclone Type Primary Separator
APE 1104	Mast Type Tow Cart
APE 1107	Press, Caulking, Hydraulic
APE 1108	Staked Rotor Cover Remover
APE 1109	Mobile Normal Maintenance Plant
APE 1110	Lightweight Disassembly Barricade
APE 1111	Crimping Machine, 8 Stab
APE 1112	Air Hoist, 6,000 Pound Capacity
APE 1113	Vapor Collector
APE 1115	Fuze Prepositioning Machine
APE 1116	TNT Probe Machine
APE 1117	Small Arms Conveyor System
APE 1119	Ball Transfer Table
APE 1120	Heat Sealer, Portable
APE 1120-1	Heat Sealer, Barrier Materials
APE 1121 1121M2 ..	Drill, Ream and Tap Machine
APE 1125	Conveyor, Abrasive Blast Machine
APE 1126	Impact Wrench

APE Number	Items
APE 1127	Maintenance Stand, Special Weapons, H-4204
APE 1129	Propellant Separator, Small Arms Brass
APE 1130	Lid Removal Machine, M142 Atomic Explosive Simulator
APE 1131	Plug Removal Device, 105-MM: M341
APE 1132	Lid Removal Machine
APE 1133	Monorail Conveyor System
APE 1134	Holding Device, Large Items
APE 1135	Safety Device, Profile & Alignment Gage
APE 1136	Propellant Weighing Machine, Automatic
APE 1138	Prime and Deprime Machine, Screw Type Primers
APE 1139	Electronic Scale
APE 1141	Warhead Handling Sling, Honest John
APE 1142	Link and Delink Machine, Cal .50, M15A1 and M15E1 Link
APE 1143	Tester, Pressurized Container Leakage
APE 1144	Taping Machine, Large Containers
APE 1145	Device, Fuze Inerting
APE 1147	Machine, Fuze Marking
APE 1149	Pettman Cement Applicator
APE 1150	Surveillance Function Test Facilities
APE 1152	Fuze Disassembly Machine, M524 Fuze
APE 1154	Profile and Alinement Gage
APE 1155	Painting Equipment
APE 1156	Surveillance Workshop, Special Weapons
APE 1158	Surveillance Workshop, Special Ammunition
APE 1160	Defuzing Machine, Hand Grenade
APE 1161	Bomb Base Plate Removal Machine
APE 1163	Fuzed Projectile Hanger
APE 1165	Primer Removal Machine
APE 1166	Booster Cup Removal Machine
APE 1167	Torque Adapter for M500 Series Fuzes
APE 1168	Fuze Removal Wrench
APE 1169	Disposal Equipment, 4.2-Inch CG Filled Cartridges
APE 1170	Mouth Dedenting and Forging Machine
APE 1172	Scarfig Equipment
APE 1173	Ignition Removal Machine, M2 Series AP Mine
APE 1175	81MM Mortar Marking Device
APE 1180	Mobile Ammunition Maintenance Plant
APE 1181	Support Trailer (MAMP)
APE 1182	Maintenance Trailer (MAMP)
APE 1183	Maintenance Trailer (MAMP)
APE 1184	Cleaning Trailer (MAMP)
APE 1185	Painting Trailer (MAMP)
APE 1186	Disassembly Trailer (MAMP)
APE 1187	Reassembly Trailer (MAMP)
APE 1188	Service Trailer (MAMP)
APE 1190	Overhead Monorail Conveyor
APE 1191	Sealing Machine, Electrical, Jaw Type

APE Number	Items
APE 1192	Sealing Machine, Heat, Continuous Sealing Type
APE 1193	Rotary Heating Machine, Oil Fired
APE 1194	Rotary Heating Machine, Gas Fired
APE 1196	Shield, Portable, Small Items
APE 1197	Tongs for Removal of M524 Fuze from Fiber Container
APE 1198	Can Sealer
APE 1199	Fluoroscope, Gage 90-MM: M371
APE 1203	Renovation System, 40-MM
APE 1207	Fixture, Primer Removal
APE 1211	Ignition Tester, M201A1 Grenade Fuze
APE 1216	Equipment for PD M78 Fuze
APE 1218	Disassembly Machine, Pull Type
APE 1219	Deactivation Furnace
APE 1225	Ammunition Small Items Dud Retriever
APE 1226	Fixture, Drill Windshield, M500 Series Fuze
APE 1228	Removal Fixture, Closing Screw & Booster
APE 1230	Assembly Machine, M456, Ammunition
APE 1232	Operational Shield for Hazardous Ammunition Items
APE 1233	Disassembly Machine, Pull Apart, Horizontal
APE 1234	Replacement of 40-MM Tracer
APE 1235	Demilitarization Plant, 115-MM: M55
APE 1237	Machine, Primer Inserting
APE 1238	Adapter, Fuze, Hand Grenade
APE 1239	Disassembly Machine for M21A4 Booster Components
APE 1241	Device, Leak Detector
APE 1242	Declipping Fixture, Remove Ogive From M90A1 Fuze
APE 1244	Removal Fixture, Primer, M90A1 Fuzes
APE 1245	Continuity Test Shield
APE 1246	Wrench, Fuze Assembly
APE 1248	Renovation System, 105-MM: M393A1, HEP-T
APE 1249	Shallow FuzeWell Liner Removal Tool
APE 1255	Leak Tester, M513 Plastic Container
APE 1256	Abrasive Cleaning Machine, Skew Roll Type
APE 1257	Primer Replacer Machine, 90-MM: M371 Series
APE 1258	Disassembly Machine, Fuze Booster Cover
APE 1260	Eyering Crimping Machine
APE 1261	Primer Inserter, Screw Type, Hand Operated
APE 1262	Prime and Deprime Machine, 90-MM: M371
APE 1264	Removal Fixture, Closing Screw
APE 1265	Punch Press, Disassemble Booster Cup for M174 Bomb Fuze
APE 1266	Modification of BLU32/B Fire Bomb System
APE 1267	Primer Height Gaging System
APE 1268	Automatic Taping Machine, Small Items
APE 1269	Fuze Removal Machine, Chemical Grenades
APE 1271	Marking Machine, Automatic
APE 1273	Punch Press Machine

APE Number	Items
APE 1274	Heat Induction Unit
APE 1275	Punch Press Machine, Five Ton
APE 1276	Air Pollution Control System
APE 1279	Renovation System, 105-MM Ammunition
APE 1281	Rupturing Machine, Plastic Container 120MM and 155MM
APE 1282	Inflatable Holding Fixture for Ammunition Items
APE 1284	Horizontal Pull Apart Machine
APE 1285	Multispur Machine Bit Kit
APE 1287	Downloading Cabinet, CBU 22
APE 1289	Crimping Machine, Ogive
APE 1290	Thread Cleaner, FuzeWell Threads
APE 1291	Hydraulic Crimper, 60 Ton, 40-MM
APE 1292	Rocket Continuity Test Holder Fixture
APE 1293	Inert Filler Removal Fixture, 750 Pound Bomb
APE 1296	Holding Fixture, Insert Fuzes Into Projectiles
APE 1297	Box Marking Equipment
APE 1298	Marking Equipment for Shells, Mortars, and Rockets
APE 1331	Test Kit for Recovered TNT
APE 1333	FuzeWell Liner Extractor Tool
APE 1500	Liner Removal Fixture
APE 1501	Set, XM390E1 Projectile Modification Tool
APE 1502	Assembly and Cocking Fixture, M605 Mine Fuze
APE 1503	Powered Aluminum Liner Removal Fixture
APE 1506	Machine, Abrasive Blast Cleaning
APE 1515	Tool Set, Modification, Fuze M500 to M520A1
APE 1900	Surveillance Function Test Equipment
APE 1910	Stop Watch, 1/10 Second
APE 1911	Stop Watch, 1/100 Second
APE 1912	Thermometer, Cup Cased
APE 1913	Meter, Sound Level
APE 1914	Anemometer
APE 1915	Wind Speed Indicator
APE 1917	Gage, Push Pull
APE 1924	Tension Testing Gage for Steel Strapping
APE 1927	Holding Device for Function Testing M16 Mines
APE 1929	Pendulum Tester, Rocket Recoil
APE 1930	Microfilm Reader Printer
APE 1936	Gun Mount for Function Testing Signals and Simulators
APE 1941	Primer Drop Tester
APE 1942	Smoke Shell and Grenade Signal Tester
APE 1943	Point Detonating Fuze Tester
APE 1944	Equipment for Function Testing Mechanical Time Fuzes
APE 1945	Equipment for Function Testing Base Detonating Fuzes
APE 1946	Equipment for Function Testing Point Initiating Base Detonating Fuzes

APE Number	Items
APE 1947	Air Leakage Tester, Barrier Bag
APE 1948	Continuity Tester, 115-MM Rocket
APE 1950	Electric Preconditioning Oven
APE 1952	Test Equipment, Lightning Protection System
APE 1958	Device, Test, Can Leak
APE 1959	Unit, Agent Sampling, for Chemical Munitions
APE 1965	Mobil Ammunition Surveillance Inspection Shop
APE 1966M1.....	Closing Door, Suppressive Shield Hand Grenade Barricade
APE 2002	Small Arms Demilitarization Operation, Typical Layout
APE 2003	Small Arms Demilitarization Operation, Letterkenny Army Depot
APE 2004	Paint Agitator
APE 2005	Link Unscrambler
APE 2007	Speed Changer Kit for Caliber .50 Delinking Machine
APE 2010	Delinker, Debelter, Caliber .30, Modified M1919A4 Machine Gun
APE 2018	Liner Hoist
APE 2019	Liner Cutting Saw
APE 2021	Hopper, Feeder (Single)
APE 2023	Vacuum Draw Off Chute
APE 2025	Debander, 155-MM, 8-inch, and 240-MM
APE 2029	Tray Adapter for Feeding Blank Ammunition
APE 2033	Tooling and Handling Equipment for Turning Band, 155-MM
APE 2034	Cartridge Aliner, Caliber .30
APE 2035	Clip Gaging Machine, Eight Round, Caliber .30
APE 2036	Automatic Labeling Machine
APE 2037	Cartridge Aliner, Caliber .50
APE 2039	Torque Wrench
APE 2047	Scale, Over-Under, Bench Style
APE 2048	Flashing Furnace, Metal Parts
APE 2049	Strapping Machine, Powered (Gerrard Mfg)
APE 2051	Ball Transfer Table
APE 2056	Obliterating Machine, Powered
APE 2063	Mustard Gas Furnace
APE 2064	Clip Loader, Eight Round, 7.62-MM
APE 2065	Strapping Machine, Power Driven
APE 2066	Scale, Shadowgraph, 0 to 2.5 Pound
APE 2067	Operational Shield, Box Type
APE 2069	Link-Delink Machine, 5.56-MM
APE 2070	Link-Delink Machine, 7.62-MM, Pull Type
APE 2072	Carton Pack, 10-Round, 5.56-MM
APE 2073	Rotate Fiber Container Obliterating Device
APE 2075M1	Torque Fixture, 2.75 Inch Rocket Warhead
APE 2076	Assembly Tools for M48A3 Fuze
APE 2078	Delink and Carton Pack Caliber .30 Links
APE 2079	Lesco Small Arms Demilitarization Machine

APE Number	Items
APE 2080	Segregator and Regimator for M15A2 Links
APE 2082	Delinker with Link Packager, Caliber .30
APE 2084	Powered Conveyor
APE 2085	Clip Loading Machine, Caliber .30, Five Round
APE 2092	Ultrasonic Test Set, 81-MM Mortar Cartridges
APE 2093	Universal Cartridge Test Unit
APE 2095	Scale Platform Support
APE 2096	Clip Loading Machine, 7.62-MM, Five Round
APE 2098	Ammunition Weighing Scale, 75-MM through 120-MM Projectiles
APE 2100	Stuck Supplementary Charge Removal Fixture
APE 2108	Vacuum Cleaner, Portable
APE 2109	FuzeWell Liner Expander
APE 2110	Linker-Delinker, 5.56-MM, Hand Operated
APE 2111	Tank, Steel Pickling
APE 2112	Debander, Projectile
APE 2113	Conveyor with Magnetic Separator
APE 2114	Linking Machine, Caliber .30
APE 2115	Drying Oven
APE 2116	Portable Multi-Purpose Barricade
APE 2117	Horizontal Disassembly Machine, Screw Type, Three Spindle
APE 2118	Hot Dip Tank, Electrically Heated
APE 2119	Hot Dip Tank, Steam Jacket Bottom
APE 2120	Electrical Test Rack for Conventional Ammunition
APE 2121	Oscillograph Amplifier
APE 2122	Bristol/Dynamaster Recorder, M161 Volt Meter
APE 2123	Microphone Tester
APE 2124	Machine, Automatic Strapping
APE 2125	Ammunition Thread Chaser, Hand Adjustable
APE 2127	Pallet Tipper
APE 2129	Automated Taping Machine
APE 2131	Small Arms Aliner
APE 2133	Crimping Machine for Percussion Primer: M28A2
APE 2135	Link-Delink Machine, 7.62-MM (DM-6 German Link)
APE 2137	Lift, Projectile (Conveyor-Monorail)
APE 2138	Power Driven Wrench, Assemble Warhead to Fuze, 3.5-inch Rocket
APE 2141	Anti-Static Coating System
APE 2142	Barricade Drop In
APE 2143	Linker, Hand, 20MM
APE 2144	Engineered System for Linking 7.62-MM Ammunition
APE 2149	Machine, Epoxy Application
APE 2152	Eye Ring Crimper
APE 2155	Machine, Centering Band Turning
APE 2165	Projectile FuzeWell Rethread Fixturing
APE 2177	Machine, Burster Well Cleaning
APE 2182	Retainer Petals Expanding Ring
APE 2183	Fin Retaining Tube
APE 2191	Hand Grenade Pitch In Barricade

APE Number	Items
APE 2203	Machine, Primer-Deprime, Screw Type Primer
APE 3000	Steel Pickling Tank
APE 3001	Linking Machine, Caliber .50, Five Station Feed
APE 3003	Linking Machine, Caliber .30
APE 3004	Fluoroscope, Automatic Loading
APE 3005	Abrasive Blast Cleaning Machine
APE 3006	Debanding Machine, 37-MM through 105-MM Projectiles
APE 3008	Fuze Assembly and Tensioning Machine
APE 3009	Depriming Machine, Screw Type
APE 3010	Booster Breakdown Machine
APE 3011	Fuze and Booster Disassembly Machine
APE 3012	Fuze Removal Machine for 20 Pound Fragmenta- tion Bomb
APE 3013	Induction Heating Units
APE 3014	Primer Inserting Fixture
APE 3015	Clip Loading Machine, Caliber .30, Eight Round
APE 3016	Dent Remover Press
APE 3017	Powder Weighing Machine, Duplex, Automatic
APE 3018	Clip Loader Machine, Caliber .30, Five Round
APE 3019	Primer Inserting and Marking Machine
APE 3020	Horizontal Pull Apart Machine, 37-MM through 105-MM
APE 3021	Polishing and Buffing Machine, Automatic
APE 3022	Machine, Pull Test
APE 3023	Powered Belt Type Conveyor
APE 3024	Powered Monorail Conveyor
APE 3025	Universal Taping Machine, Single and Double Roll
APE 3026	TNT Flaking Machine
APE 3027	Vibrox Packer, BF Gump Company
APE 3028	Fuze Cutting Machine, 57-MM
APE 3029	Powered Declipping Machine, Five and Eight Round
APE 3030	Portable Powered Conveyor
APE 3031	Conveyor with Magnetic Separator
APE 3032	Powered Shaker
APE 3033	Multi Wash Dust Collector
APE 3034	Lead Recovery Furnace
APE 3035	Delinking and Segregating Machine, Caliber .30 and Caliber .50
APE 3036	Banding Machine, 90-MM and 105-MM Projectiles
APE 3037	Hydraulic Broaching Machine, 75-MM Projectile
APE 3038	Press for Inserting Gas Seal, Fuze: M62A1
APE 3039	Heat Sealing Equipment
APE 3040	Pneumatic Staking Machine with Compression Riveter for Copper Slugging
APE 3045	Deep Cavity Drill, Vertical
APE 3046	Cartridge Cut-Off Machine, 37-MM through 8-inch
APE 3047	Powered Resizing Press
APE 3048	Air Hoists
APE 3049	Metal Bucket Conveyor, Piano Hinge Type

APE Number	Items
APE 3050	Bucket Conveyor, Tunnel Type
APE 3052	Paint Spray Booth, Dry Type
APE 3053	Debanding Machine, 8-inch and 240-MM Projectiles
APE 3054	Powder Measure, Lyman No. 55
APE 3055	Linking Machine, Hand Operated, Caliber .30
APE 3056	Linking Machine, Hand Operated, Caliber .50
APE 3057	Automatic Can Opener, Electric Operated
APE 3058	Sump Pump, Gorman Rupp, Model 6262, Size 2-1/2
APE 3059	Booster Stake Removing Machine
APE 3060	Chemical Cleaning System
APE 3061	Paint Spray Booth, Wet Type
APE 3062	Sand Blasting Machine
APE 3064	Salt Spray Cabinet
APE 3065	Carton Packing Machine, Caliber .50, 10 Round
APE 3066	Denver Lathe
APE 3067	Carton Packing Machine, Caliber .50, 10 Round
APE 3068	Infra-Red Drying Oven, 57-MM through 105-MM Cartridges
APE 3069	Automatic Bandoleer Loader, Eight Round Clips
APE 3070	Bandoleer Printer
APE 3071	Primer Removal Machine, Power Operated
APE 3072	Carton Packing Machine, Automatic, Caliber .30, 20 Round
APE 3073	TNT Agitator
APE 3074	Marking Machine, Semi-automatic, M21 Cans
APE 3075	Hand Grenade Defuzing Machine
APE 3076	Disassembly Machine, 106-MM
APE 3077	Analytical Balance for Shadowgraph Scales
APE 3078	Two Wheel Cart for Handling Palletized Shells
APE 3079	Crusher for Metal Cans and Metal Liners
APE 3080	Linking Machine, 7.62-MM, Modified Caliber .30
APE 3081	Brass Loading Machine, Slinger Type
APE 3082	Powder Dumping Unit for Debagging 8-inch Propellant
APE 3083	Zone Weighing Platform Scale
APE 3084	Bomb Base Plate Disassembly Equipment
APE 3085	Bench Dial Scale
APE 3086	Link Positioning Fixture, M15A1 Link
APE 3087	Continuity Test Equipment for 106-MM Rifle Ammunition
APE 3088	Disassembly Machine for M605 Mine Fuze
APE 3089	Heat Treating Furnace
APE 3090	Plug Removal Machine, Pneumatic Operated
APE 3091	Link-Delink Machine, 20-MM, M23 (T-51)
APE 3092	Primer Remover, Hand Operated
APE 3093	Manometer
APE 3094	Operational Shield for Protection in Powder Debagging
APE 3096	Repositioning Machine, M15, Caliber .50
APE 3097	X-Ray Unit (Baltograph)

APE Number	Items
APE 3098	Link Unscrambler, Caliber .30
APE 3099	Clip Loader Machine, Caliber .30, Hand Operated
APE 5009	Air Test Kit
APE 5012	Machine, Ogive Removal
APE 6001	Scale to Weigh Redeye Missile
APE 6002	Shillelagh Barricade
APE 6500	Container Handling Equipment, Spartan
APE 6501	Spartan Crane
APE 6502	Handling Unit, Shipping and Storage Container
APE 7003	Machine, Powered Strapping, 1/2 Inch
APE 7022	Furnace, Deactivation, Small
APE 7041	Machine, Hydraulic Staking 0-6 Ton Bench Type
APE 7048	Press, Gas Check Seal, Medium Caliber Navy Projectile

APPENDIX B
OPERATIONAL INDEX

This appendix contains a cross reference between ammunition items and the APE items needed for function testing, inspecting, maintenance, renovation and demilitarization of the ammunition item.

Section I. SURVEILLANCE FUNCTION TESTS

Items tested	Equipment used for test	
	APE no.	Nomenclature
AMMUNITION FUNCTION TESTING	1937/1905	Shelter, Personnel Protection
BOMB, FIRE FMU 7A/B FMU 7B/B, and 7C/B: Fuze Assembly, Initiator Assembly, and Cable Assembly	1935	Test Equipment Continuity and function FMU 7A/B Fire Bomb
CAP, BLASTING ELECTRIC:	1901 1903 1916M1 1938/1904 1980	Tank, Immersion Table, Testing, Function Oven Preconditioning Chamber Low Temperature. Universal Resistance Test Instrument.
CAP, BLASTING NONELECTRIC: M7 Special: Type 1 (J-1) (PETN or RDX) No. 6 and 8, Instantaneous Tetryl, Type A	1903 1903E005 1916M1 1938/1904	Table, Testing KIT Function Test Nonelectric Blasting Caps Oven, Preconditioning Chamber, Low Temperature
CARTRIDGE, PHOTOFLASH: M112 Series (1, 2, and 4 Second Delay) Practice M121 and M124 M112, M112A1, M121 Ctgs	1902M2 1908 1921M2 1921E001	Device Holding, Function Test Measuring Device, Altitude and Drift Device, Photoflash, Car- tridge Test KIT, Testing

Items tested	Equipment used for test	
	APE no.	Nomenclature
CARTRIDGE 40MM:	1902M2 1902E004	Device Holding, Function Test KIT, Mount M79 Grenade Launcher
Riot Control, CS, M674	1951M1 1963	Launcher, Test Equipment, M176 and M226 Grenade Unit, Electronic Control, M176 and M226 Grenade
Red Smoke, RS, M675		
Tactical, CS, XM651E1 Launcher, M176 Grenade		
DETONATOR FRICTION:	1901	Tank, Immersion
8 Second Delay, M2 (A1),	1903	Table, Testing
and 15 Second Delay, M1 (A1)	1916M1	Oven, Preconditioning
DETONATOR PERCUSSION:	1901	Tank, Immersion
15 Second Delay, M1A2 (M1E1)	1903	Table, Testing
and 8 Second Delay, M2A1 (M2E1)		
DETONATION SIMULATOR EXPLOSIVE M80:	1903	Table, Testing
FIRING DEVICE DEMOLITION:	1916M1	Oven, Preconditioning
Delay Type, M1 (All Delays)	1949	Device, Automatic Timing
FIRING DEVICE DEMOLITION:	1903	Table, Testing
Pressure Type, M1 and M1A1	1907	Device, Pressure Testing
	1907E005	KIT, Firing Device, Demolition, Pressure Type, M1
FIRING DEVICE DEMOLITION:	1903	Table, Testing
Pull Type, M1, and	1907	Device, Pressure Testing
Pull-Release Type, M3	1907E008	KIT, Function Test Firing Device, Pull-Release Type, M3
FIRING DEVICE DEMOLITION:	1903	Table, Testing
Release Type, M1, and	1907	Device, Pressure Testing
Pressure Release Type, M5	1907E003	KIT, Firing Device, Demolition, Pressure Release Type, M5
	1907E004	KIT, Firing Device, Demolition Release Type, M1

Items tested	Equipment used for test	
	APE no.	Nomenclature
FLARE SURFACE: Trip, M49	1901	Tank, Immersion
	1903	Table, Testing
	1903E001	KIT, Function Test M49 and M49A1 Trip Flares
	1903E003	KIT, Remove Cap from M49 and M49A1 Trip Flares
FLARE SURFACE: Trip, M49A1	1901	Tank, Immersion
	1903	Table, Testing
	1903E001	KIT, Function Test M49 and M49A1 Trip Flares
	1903E003	KIT, Remove Cap from M49 and M49A1 Trip Flares
	1938/1904	Chamber, Low Temperature
FLARE SURFACE: Trip, Parachute, M48	1901	Tank, Immersion
	1903	Table, Testing
	1907	Device, Pressure Testing
	1908	Measuring Device, Altitude and Drift
	1909	Holding and Fuze Breakoff Fixture
	1909E001	KIT, Break Off Fuze on M48 Trip Flares
FUSEE, WARNING RAILROAD: Red, 20 Minute, M72	1901	Tank, Immersion
	1903	Table, Testing
	1916M1	Oven, Preconditioning
FUZE, HAND GRENADE: Practice, M10 Series and M205 Series	1901	Tank, Immersion
	1903	Table, Testing
	1903E002	KIT, Function Test M6, M10, M204, M205, M206, and M213 Hand Grenade Fuzes
FUZE, HAND GRENADE: M6 Series, M204 Series, M206 Series, M213 and M215	1901	Tank, Immersion
	1903	Table, Testing
	1903E002	KIT, Function Test M6, M10, M204, M205, M206, and M213 Hand Grenade Fuzes
FUZES M204, M205, M206, M213, M215	1955	Grenade Fuze Tester

Items tested	Equipment used for test	
	APE no.	Nomenclature
FUZE, MINE: Combination, M6A1	1901	Tank, Immersion
	1903	Table, Testing
	1907	Device, Pressure Testing
	1907E002	KIT, Function Test M6A1 Fuze, With Cocking Device
	1909	Holding and Fuze Breakoff Fixture
GRENADE, HAND, FRAGMENTATION: With Fuze, Delay	1901	Tank, Immersion
	1916M1	Oven Preconditioning
	1920	Shield, Operational
	1922M1	Launcher, Pneumatic Grenade
	1922E001	KIT, MK2 Grenade
	1922E002	KIT, M26 Grenade
	1922E005	KIT, M33, M59, M67 & M68 Grenade
	1922E006	KIT, Static Test M26A1, M33A1, M57, M59 & M68 Grenades
	1922E008	KIT, Function Test MK3A2 Grenade
	1922E009	KIT, Function Test M47 & M48 Grenade
	1922E011	KIT, Function Test M14 Grenade
	1976	Pneumatic Actuation System
GRENADE, HAND, RIOT: M6 Series, M7 Series, M25 Series	1922M1	Launcher, Pneumatic Grenade
	1922E007	KIT, Function Test M25 Grenade
	1922E011	KIT, Function Test M6 & M7 Series Grenade
	1976	Pneumatic Actuation System
GRENADE, HAND, SMOKE M18; HC, AN-M8 WP; M15 and M34	1922M1	Launcher, Pneumatic Grenade
	1922E010	KIT, Function Test M34 Grenade
	1922E011	KIT, Function Test M8, M15 & M18 Grenade
	1976	Pneumatic Actuation System
GRENADE, HAND ILLUMINATING: MK1, with Fuze	1901	Tank, Immersion
	1903	Table, Testing
	1903E004	KIT, Function Test MK1 Illuminating Grenade
	1916M1	Oven, Preconditioning

Items tested	Equipment used for test	
	APE no.	Nomenclature
GRENADE, HAND, RIOT: Pocket, CS XM58	1922M1	Launcher, Pneumatic Grenade
GRENADE RIFLE: Smoke, M22 and M22A2 (Violet, Green, Red, and Yellow)	1902M1/ 1902M2 1902E001	Device, Holding, Function Test KIT, Mount M1 or M14 Rifle
GRENADE RIFLE: Smoke, Colored Streamer, M23 and M23A1 (Violet, Green, Red, and Yellow)	1902M2 1902E001	Holding Device KIT, Mount M1 or M14 Rifle
IGNITER BLASTING FUSE: Weatherproof, M2	1903	Table, Testing
IGNITER TIME BLASTING FUSE: M1, Friction	1903	Table, Testing
IGNITER TIME BLASTING FUSE: Weatherproof, M60	1901 1903	Tank, Immersion Table, Testing
IGNITION ASSEMBLY: Primer and Ignition Cartridge; Mortar, 60MM and 81MM	1928 1928E002	Test Equipment, Mortar Component KIT, Ignition Assembly Firing Stand
MINE ANTIPERSONNEL: M2 Series, with Fuze, Mine, Combination M6A1	1901 1903 1907 1909 1909E002 1920	Tank, Immersion Table, Testing Device, Pressure Testing Fixture, Holding and Fuze Breakoff KIT, Break Off Fuze on M2 Mines Shield, Operational
MINE ANTIPERSONNEL: M3, with Fuze, Mine, Combination, M7A1	1901 1903 1907 1920	Tank, Immersion Table, Testing Device, Pressure Testing Shield, Operational

Items tested	Equipment used for test	
	APE no.	Nomenclature
MINE, ANTIPERSONNEL:	1901	Tank, Immersion
M16 Series with Fuze,	1903	Table, Testing
Mine, Combination, M605	1907	Device, Pressure Testing
	1907E007	KIT, Function Test M605 Mine Fuze
	1920	Shield, Operational
	1940M3	Testing Fixture, Mine AP: M16
M26 Mine	1940E001	KIT, Function Test
	1976	Pneumatic Activation System
	1978	Mine Test Monitoring Equipment
	1124	Tool, Retainer Ring Expander
	2061	Assembly and Disassembly Machine M605 Mine Fuze
PRIMER, PERCUSSION:	1157	Tester, Primer Sensitivity
M26, No. 1-1/2 and C12 Hand Grenade Fuze Detonators		
M1B1A2, M28B2, M32, M34	1931	Tester, Percussion Primer
M57, M58, M60A1, M71E1, M82, and MK2A4	1931E001	KIT, Primer Piercing Fixture
	1931E002	KIT, Continuity Test for MK42 Primer
SIGNAL, ILLUMINATION:	1901	Tank, Immersion
Red Star, Distress	1916M1	Oven, Preconditioning
Parachute, M131	1918M1	Device, Holding, Hand Sig- nal
	1918E002	KIT, Test M131 Signals
	1933	Device, Altitude and Drift
	1938/1904	Chamber, Low Temperature
SIGNAL, ILLUMINATION	1901	Tank, Immersion
AIRCRAFT:		
Yellow Tracer, Red-Yellow	1902M2	Device, Holding
Star, AN-M53 Series;	1908	Measuring Device, Altitude and Drift
Green Tracer, Red-Red Star, AN-M54 Series;		
Green Tracer, Green-Red Star		

Items tested	Equipment used for test	
	APE no.	Nomenclature
SIGNAL, ILLUMINATION, AIRCRAFT: DOUBLE STAR: Red-Red, AN-M37 Series; Yellow-Yellow, AN-M38 Series; Green-Green, AN-M39 Series; Red-Yellow, AN-M40 Series; Red-Green, AN-M41 Series; Green-Yellow, AN-M42 Series	1901 1902M2 1908	Tank, Immersion Device, Holding Measuring Device, Altitude and Drift
SIGNAL, ILLUMINATION, AIRCRAFT: SINGLE STAR: Red, AN-M43A1 and A2; Yellow, AN-M44A1 and A2; Green, AN-M45A1 and A2	1901 1902M2 1908	Tank, Immersion Device, Holding Measuring Device, Altitude and Drift
SIGNAL, ILLUMINATION GROUND: Parachute, Red Star, M126 Series and White Star, M127 Series	1901 1908 1916M1 1918M1 1918E001 1938/1904	Tank Immersion Measuring Device, Altitude and Drift Over, Preconditioning Device, Holding, Hand Sig- nal KIT, Test M125, M126, and M127 Signals Chamber, Low Temperature
SIGNAL, ILLUMINATION GROUND: Star Cluster, Green, M125 Series; Red, M158 and White, M159	1901 1908 1916M1 1918M1 1918E001 1938/1904	Tank, Immersion Measuring Device, Altitude and Drift Oven, Preconditioning Device, Holding, Hand Sig- nal KIT, Test M125, M126 and M127 Signals Chamber, Low Temperature
SIGNAL, ILLUMINATION GROUND: Star Cluster, White, M18 Series; Green, M20 Series; Amber, M22 Series and Red, M52 Series	1901 1902M2 1902E001 1908	Tank, Immersion Device, Holding KIT, Mount M1 or M14 Rifle Measuring Device, Altitude and Drift

Items tested	Equipment used for test	
	APE no.	Nomenclature
SIGNAL, ILLUMINATION GROUND: Star, Parachute, White, M17 Series; Green, M19 Series; Amber, M21 Series; and Red, M51 Series	1901 1902M2 1902E001 1908	Tank, Immersion Device, Holding KIT, Mount M1 of M14 Rifle Measuring Device, Altitude and Drift
SIGNAL, ILLUMINATION MARINE: Two Star, Red, AN-M75	1901 1903 1908	Tank, Immersion Table, Testing Measuring Device, Altitude and Drift
SIGNAL, KIT, PERSONNEL, DISTRESS: M185 THRU M190	1901 1903 1908 1916M1 1920 1937 1967/1967M1 1967E001	Tank, Immersion Table, Testing Measuring Device, Altitude & Drift Over, Preconditioning Shield, Operational Shelter, Personnel Protection Function Test Equip, Signals M185 thru M190 KIT, Force Indicator, Firing Pin for Projector Signal
SIGNAL, SMOKE AND ILLUMINATION MARINE: AN-MK13 Mod O	1901 1903	Tank, Immersion Table, Testing
SIGNAL, SMOKE GROUND: Parachute, Green, M128 Series; Red, M129 Series	1901 1908 1916M1 1918M1 1918E001 1938/1904	Tank, Immersion Measuring Device, Altitude and Drift Oven, Preconditioning Device, Holding, Hand Signal KIT, Test M125, M126 and M127 Signals Chamber, Low Temperature
SIGNAL, SMOKE GROUND: Red, M62; Yellow, M64; Green, M65; Violet, M66	1901 1902M2 1902E001 1908	Tank, Immersion Device, Holding KIT, Mount M1 or M14 Rifle Measuring Device, Altitude and Drift

Items tested	Equipment used for test	
	APE no.	Nomenclature
SIGNAL, SMOKE GROUND: White, M166; Green, M167; Red, M168; Yellow, M169	1908 1916M1 1938	Measuring Device, Altitude and Drift Oven, Preconditioning Chamber, Low Temperature
SIMULATOR, BOOBY TRAP: Flash, M117	1903 1926	Table, Testing Device, Lanyard Quick Re- lease
SIMULATOR, BOOBY TRAP: Illuminating, M118	1903 1926	Table, Testing Device, Lanyard Quick Re- lease
SIMULATOR, BOOBY TRAP: Whistling, M110	1903 1926	Table, Testing Device, Lanyard Quick Re- lease
SIMULATOR, HAND GRENADE: M116, M116A1	1903 1916M1 1938/1904	Table, Testing Oven, Preconditioning Chamber, Low Temperature
SIMULATOR, PROJECTILE, AIR BURST: Charge, Smoke, Puff, White	1903	Table, Testing
SIMULATOR, PROJECTILE AIR BURST: M27	1903 1908	Table, Testing Measuring Device, Altitude and Drift
SIMULATOR, PROJECTILE AIR BURST: M27A1B1	1901 1902M2 1902E001 1908	Tank, Immersion Device, Holding KIT, Mount M1 or M14 Rifle Measuring Device, Altitude and Drift
SIMULATOR, PROJECTILE, AIR BURST: M74 Series	1901 1902M2 1908	Tank, Immersion Device, Holding Measuring Device, Altitude and Drift
SIMULATOR, PROJECTILE GROUND BURST: M115 SERIES	1903 1916M1 1938/1904	Table, Testing Oven, Preconditioning Chamber, Low Temperature

Items tested	Equipment used for test	
	APE no.	Nomenclature
SMALL ARMS TRACER AMMUNITION:	1923	Combination Gun Mount for Tracer Small Arms Ammunition
	1923E001	KIT, Mount Cal .30 Machine Gun, M37
	1923E002	KIT, for CAL. 50 Machine Gun, M2
	1923E003	KIT, Mount 7.62MM Machine Gun, M60
	1923E004	KIT, Mount Cal .50 Spotting Rifle, M8C
	1923E005	KIT, Mount Cal .30 Carbine, M1 or M2
	1923E006	KIT, Graze Impact Table
	1923E010	KIT, Mount 7.62MM Machine Gun M240
	1923E011	KIT, Mount 7.62MM Machine Gun M219
	1923E012	KIT, Mount 7.62MM Machine Gun M134
	1923E013	KIT, Function Test 64MM Projectiles
	1923E014	Power Supply for Kits E011 & E015
	1923E015	KIT, Mount Cal .50 Machine Gun M85
	1923E016	KIT, Function Testing 5.56MM M16A1 Rifle
	1963	Electronic Control Unit

SECTION II. INSPECTION AND SPECIAL TESTS

Item inspected or tested	Equipment used for inspection or test	
	APE no.	Nomenclature
CARTRIDGE, 40MM: M384 with M16 Links	1277	Link and Delink Tool, 40MM, M16 Link
FIRE BOMB, FMU-7A/B	1935	Test Equipment, Continuity and Function
FUZES, ARTILLERY:	1223	Torque Fixture, M54, M55, and M500 Series Fuzes
	1928	Test Equipment, Mortar Component
	1939M1	Test Equipment, Continuity and Resistance
	1213M1	Barricade, Pitch-In
GRENADES:	1906	Tester, Fuze, Grenade Ig- niting
M176 & M226 Grenade Launchers	1951M1	Test Equipment
M176 & M226 Grenade Launchers	1963	Electronic Control Unit
M239 & M250 Grenade Launchers	1974	Test Equipment for L8 Series Grenade
MINES:	2061	Assembly and Disassembly Machine, M605 Mine Fuze
M605 Mine Fuze		
MORTAR AMMUNITION:	2128	Wrench, Disassembly, 81MM Mortar Fin
PROJECTILES:	1925M1	Disassembly Equipment, 4.2": M335; 155MM: M118
	1960M1	Fixture, Concentricity Check 105MM: L36, M392A2
	1961	Fixture, Torque Test Sub- projectile, 105MM, L36, M392A2
	1962M1	Fixture, Torque Test Primer 105MM, L36, M392A2
	1962E004	Continuity Test Kit
	1962E005	Kit, F/5"/54 CTG
	1962E006	Kit, F/MK42 Primer
	2132	Ultrasonic Inspection Equipment
	2205	Machine 155MM M483A1 Single Station Screening
	2221	Ogive Concentricity Test fixture

Item inspected or tested	Equipment used for inspection or test	
	APE no.	Nomenclature
PROPELLING CHARGE:	2222	Air Test Device for Projectile
	1052M1	KIT, Air Test
	1919	Tool, Closing Plug Removal
ROCKETS AND ROCKET MOTORS:	1189	Test Equipment, Continuity
	1189E001	KIT, Continuity Test 2.75-Inch Rocket Motors w/Press Type Closures
	1189E002	KIT, Continuity Test 3.5-Inch Rocket Motors
	1189E003	KIT, Continuity Test 5-Inch Rocket Motors
	1189E004	KIT, Continuity Test 2.75-Inch Rockets with Solid Bulkhead Closures or with XM229 or M151 Warheads
	1189E011	KIT, Continuity Test 5-Inch M3 JATO Rocket Motor
	1189E012	KIT, Accessory, Shunt Clip Elimination from 3.5-inch Rocket
	1189E015	KIT, Accessory for Continuity Testing 2.75-Inch Rocket Motor MK40 with Warhead M151, M156, M229, M249, WTU/1B & WTU-4/A/A (Remote Operation Only) without manual removal of Shorting Clip.
	1189E016	KIT, Accessory for Continuity Testing 2.75 inches Rocket Motor MK40 only without manually removing Shorting Clip. Machine Tests for proper Shorting Lifts Clip and Tests Continuity, replaces Shorting Clip and ensures Shortings by remote operation.
	1189E017	KIT, Accessory for Continuity Testing of MK66 - 2.75 inch Rocket Motor
	1272	Gage, Dial Indicating
	1956	66MM Rocket Function Test Equipment

Item inspected or tested	Equipment used for inspection or test	
	APE no.	Nomenclature
ROCKETS AND ROCKET MOTORS--		
Continued:		
	1972	Meter, Warhead Conductivity Test, M74 Rocket
	2062	Ultrasonic Test Equipment
	2062E001	KIT, 66MM: M72 LAW Fuze Closure
	2062E002	KIT, Hollow Core Eyebolt Lifting Plug
	7074	Continuity Test of 5"Zuni Rocket Motor
SMALL ARMS AMMUNITION:		
	1056M2	Bell Jar Testing Machine
	1099	Declipper, Hand, Eight Round
	1958M1	Device, Test, Can Leak
	1958E001	M548 and M590 Cans
TRACER:		
	1932	Tester, Tracer
TOXIC CHEMICAL FILLED MUNITIONS:		
	2053M2	Device, Air Sampling
	1934	Sampling Unit, Chemical Bombs
	1957	Tank, Detoxification
	1959M1	Sampling Unit, Chemical Ammo
	1964	Test for presence of Mustard Agent in igloos
	1510	Transfer and glove box for toxic chemical ammo
	5015M1	Inspection booth for toxic chemical ammo
ITEMS COMMON TO VARIOUS SURVEILLANCE ACTIVITIES:		
	1086	Tank, Hot Dip protable
	1953	Conductive Floor and Shoe Tester
	1953E001	KIT, Compression Test Fixture
	1953E003	KIT, Aircraft Ground Testing
	1958M1	Device, Test, Can Leak
	2050M1	Table, Surveillance Work
	2068M2	Baltograph Machine
	2074	Facility, Radiographic Inspection

SECTION III. MAINTENANCE RENOVATION AND DEMILITARIZATION

End items	Operations performed	APE no.
CARTRIDGE 5.56MM	Pull bullet from cartridge	2011
	KIT, bullet pull	2011E003
	Panel Board assembly	2013M2
	Clip cartridges into 10-round clips	2071
	Declip cartridges from 10-round clips	2077
	KIT, center guide	2077E001
	Delink/link M27 link	2086
CARTRIDGE 7.62MM	Aline cartridges	2012
	Feed chute	2012E001
	Cartridge guide	2012E002
	Molin roll stand	2012E003
	Panel board assembly	2013M2
	Collect propellant	1028
	Control feed rate of cartridges	2020
	Control demilitarization operation	2013M2
	Convey cartridges and components	2032
	Declip cartridges from 5-round clips by power operation	2077
	KIT, center guide	2077E002
	Declip cartridges from 8-round clips by hand operation	1099
	Declip cartridges from 5-round and 8-round clips by power operation	2059
	Delink of cartridges from M13 links	2198
	Link cartridges into M13 Links by power	1259
	Link cartridges into M13 links	1217M1
	and delink cartridges from M13 Links by power operation	1114
	KIT, blank adapter	1114E001
	Pack two 750-round belts into M548 container	2134
	Production pull test of belts	2176
	Pull bullet from cartridge	2011
	KIT, bullet pull	2011E002
	Store cartridges, dual outlet	2031
	Store cartridges, single outlet	2021M1

End items	Operations performed	APE no.
CARTRIDGE CALIBER .30	Aline cartridges	2012
	Molin roll stand	2012E003
	Collect propellant	1028
	Control feed rate of cartridges	2020
	Control demilitarization operation	2013M2
	Convey cartridges and components	2032
	Debelt or delink cartridges from web belts or M1 links	2008
	Declip cartridges from 5-round clips by power operation	2077
	KIT, center guide	2077E002
	Declip cartridges from 8-round clips by hand operation	1099
	Declip cartridges from 5-round and 8-round clips by power operation	2058
	Delink cartridges from M1 links	2059
	Link cartridges into M1 links and delink cartridges from M1 links by power operation	2009
	Production pull test of belts	1025
	Pull bullet from cartridge	
	KIT, bullet pull	2176
	Store cartridges, dual outlet	2011
	Store cartridges, single outlet	2011E001
		2031
		2021M1
CARTRIDGE CALIBER .50	Aline cartridges	2017
	Collect propellant	1028
	Control feed rate of cartridges	2020
	Control demilitarization operation	2013M2
	Convey cartridges and components	2032
	Decore bullets	2126
	Delink cartridges from M2 and M9 links by power operation	1024M2
	Delink cartridges from M15A2 links by power operation	2006M1
	Enclose decoring machine	2030
	Feed bullets to decoring machine	2028M1
	Feed bullets to automatic feeders	2015M1
	Link cartridges into M2 and M9 links by power operation	2024
	Link cartridges into M15A2 links by power operation	2054
	Link cartridges into M2 and M9 links and delink cartridges from M2 and M9 links by power operation	2027M4
		1024M2
		2026

End items	Operations performed	APE no.
CARTRIDGE, CALIBER .50	KIT, delinking attachment	2026E001
	Production pull test of belts	2176
	Pull bullet from cartridges	2016
	Segregate components after decoring	2022
	Store cartridges, dual outlet	2031
	Store cartridges, single outlet	2021M1
CARTRIDGE, 20MM	Break down cartidges	2001M1
		2001E001
		2001E002
		2001E003
	All kits for 200/M1	7033
	Collect explosives vacuum	2043
		3041A/3041B
	Collect explosives, Separator	2042
	Collect propellant	1028
	Link cartridges into M12 or M14 links and delink cartridges from M12 or M14 links by power operation	2060
	Link cartridges into M12, M14 or M17 links and delink cartridges from M12, M14 or M17 links by power operation	2140
	Link cartridges into M3, M8E1, M10 or M24 links and delink cartridges from M3, M8E1, M10 or M24 links by power operation	2147
	Link cartridges into M3, M8E1 or M10 links	2147E001/3002A
	Delink cartridges from M3, M8E1 or M10 links	2147E002/3002A
	Link cartridges into M24 links	2147E003
	Delink cartridges from M24 links	2147E004
	Production pull test of belts	2176
CARTRIDGE, 25MM	Link/delink cartridges into M28 links	2215
CARTRIDGE, 37MM	Pull projectile from cartridge case	100M1
	Sheid, VPA	1001E001
	Calibration	1001E011
	KIT, basic, pull apart	1001E019
	M54, M59, M63 and M92 with M16 cartridge case	1001E020

End items	Operations performed	APE no.
CARTRIDGE, 37MM	M54, M59, M63 and M92 with M17 cartridge case	1001E021
	Cartridge with self-destroying tracer	1001E081
	M16 cartridge case	1001E051
	M17 cartridge case	1001E052
		1106M1
		1106E003
	M17 cartridge case	1106E004
	MK1, MK2 and M16 cartridge case	1229M1
		1229E002
	M17 cartridge case	1229E003
	MK1, MK2 and M16 cartridge case	1028
	Collect propellant	1028E001
	Kit, exhauster, centrifugal	1028E003
	Kit, control system, propellant discharge pneumatic	
	Prime and deprime	1001M1
	Shield, VPA	1001E001
	Kit, Prime and deprime operation	1001E050
	Hold projectile M51B1A1, M54, M54A1, M55A1, M59, M59A1 and M63	1204
		1204E002
		1065
		1065E002
	M51B1A1, M54, M54A1, M55A1, M59, M59A1 and M63	
	Resize cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, resize cartridge case	1001E003
	Kit, basic, resize	1001E019
	M16 and M17 cartridge case	1001E038
	Stop for drilling operation	1171
	Mark cartridge case base	2178
	Weigh propellant	2102
	Assemble and crimp cartridge	1001M1
	Shield, VPA	1001E001
	Crimping and assembly cartridge	1001E019
	M16 cartridge case	1001E060
	M17 cartridge case	1001E061
CARTRIDGE, 40MM	Delink M384 cartridges w/M16 Links	1277
	Pull projectile from cartridge case	1001M1
	Shield, VPA	1001E001
	Calibration	1001E011
	Kit, basic, pull apart	1001E019
	M25 and MK2 cartridge cases	1001E053
	MK2 cartridge case	1001E073

End items	Operations performed	APE no.
CARTRIDGE, 40MM	MK2, MK11, M81 & M91 cartridge	1001E022
	Cartridge with self-destroying tracer	1001E081
		2000
	M81, M91, MK2 and MK11 Cartridges	2000E002
		1106M1
	M25 cartridge case	1106E005
		1229M1
	Kit, prime and deprime	1229E004
	Deprime cartridge case	1001M1
	Shield, VPA	1001E001
	Deprime operation	1001E050
	Collect propellant	1028
	Kit, exhauster, centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003
	Hold projectile	1204
	M81 and M81A1 cartridge	1204E003
		1065/1065E003
	Remove tracer from projectile	1002M2
	MK2 HEI-T projectile	1002E041
	Resize cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, resize cartridge case	1001E003
	Kit, basic, resize	1001E019
	Kit, basic, resize	1001E037
	M25 and MK2 cartridge cases	1001E039
	Mark cartridge case base	2178
	Stop for drilling operations	1171
	Weigh propellant	2102
	Assemble and crimp	1001M1
	Shield, VPA	1001E001
	Kit, assembly and crimp	1001E019
	Cartridge cases, M25 & MK2	1001E062
	Cartridge cases, MK2	1001E073
	Cartridge with self-destroying tracer	2148
		1231
	Link M384 cartridges w/M16 links	1277
	Pull test MK2, MK11, M81 and M91 cartridges	1299
		1299E001
CARTRIDGE, 57MM	Pull projectile from cartridge case	1001M1/2000
	Kit, shield	1001E001
	Kit, basic, pull apart	1001E019

End items	Operations performed	APE no.
CARTRIDGE, 57MM	M306, M307, and M308 cartridges	1001E023/2000E003
	M303 cartridge	1001E024
	Collect propellant	1028
	Kit, exhauster, centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003
	Prime and Deprime	1001M1/1106M1
	Kit, shield	1001E001
	Kit, prime and deprime operation	1001E050
	M30 cartridge case	1001E054/1106E006
	M23 cartridge case	1001E055/1106E007
		1229M1
	M30 cartridge case	1229E005
	M23 cartridge case	1229E006
	Hold projectile	1065/1204
	T18E1, M303, M307, and M307A1 cartridges	1065E012/1204E004
		1002M2
	Remove closing plug M307A1	1002E039
	Remove base detonating fuze from projectile	1002E002
	M306A1 cartridge	1002E031
		1153M1
	M307A1 cartridge	1153E019
	Resize cartridge case	1001M1/1164
	Shield, VPA	1001E001
	Kit, resize cartridge case	1001E003
	M306 and M307 cartridges	1001E007
	Kit, basic, resize cartridge case	1001E019
	Kit, resize cartridge case	1001E037
	M30 cartridge case	1001E040/1164E003
	M23 cartridge case	1001E041/1164E004
	Mark cartridge case base	2178
	Stop for drilling operations	1171
	Weigh propellant	2103
	Assemble and crimp	1001M1
	Shield	1001E001
	Kit, basic, assembly and crimping	1001E019
	M23 cartridge case	1001E063
		1010M2
	M306 and M307 cartridges	1010E010
		1220
	M307 cartridge	1220E010
		1299

End items	Operations performed	APE no.
CARTRIDGE, 57MM	Pull test M303, M306, M307 and M308	1299E002
		1001M1
	Calibration	1001E011
CARTRIDGE, 60MM	Hold projectile	1065/1204/2097
	M49A2 and M50A2 cartridges	1065E009/1204E012
	Remove fin assembly	1153M1
	M2 and M5 fins	1153E014
	Remove fuze from projectile	1002M2
	M49 and M50 cartridges	1002E014
	M302 cartridge	1002E015
	Remove primer from cartridge	1153M1
	M49A2, M83, and M302 cartridges	1153E001
	Remove primer or ignition cartridge	1148
	from fin assembly	1222
	Derust projectile	1200/2038
	Kit, clean mortar	1200E001
	Stop, for drilling operations	1171
CARTRIDGE, 75MM	Pull projectile from cartridge case	1001M1
	Shield, VPA	1001E001
	Calibration	1001E011
	Kit, basic, pull apart	1001E019
	M48, M61, M64, M66 and M338 cartridges	1001E025
	M309, M310 and M311 cartridges	1001E026
	M349 cartridge	1001E027
	M334 cartridge	1001E028
	Collect propellant	1028
	Kit, exhauster, centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003
	Prime and deprime	1001M1
	Shield, VPA	1001E001
	Kit, basic, Prime and deprime operation	1001E050
	M5, M9 and M18 cartridge cases	1001E056
	M31 cartridge case	1001E057
		1021M4
	Kit, holding shoe for cartridge case	1021E001
		1106M1
	M35 cartridge case	1106E007
	M5, M9, and M18 cartridge cases	1106E008
	Prime and Deprime	1229M1
	M35 cartridge case	1229E006

End items	Operations performed	APE no.
CARTRIDGE, 75MM	M5, M9 and M18 cartridge cases	1229E007
	M31 cartridge case	1229E008
		2151
	M35 cartridge	2151E002
	Hold projectile	1065/1204
	M48, M64, T65E11, M66, M88A1, M309,	1065E005/
	M309A, M309A1, M311, M311A1, M334	1204E005
	and M349	2097
	Assemble and disassemble fuze from	1247
	projectiles	
	Remove fuze from projectile	1002M2
	Base detonating fuze	1002E003
	Point detonating fuze (except M344	1002E005
	projectile)	
	M334 cartridge	1002E006
		1153M1
	M349 cartridge	1153E006
	Drill fuzewell cavities	1283
		1043
	Remove fuzewell liner	1128M1/1140M2
	Expand fuzewell liners	2107
	Remote control	2107E001
	Remove M21A4 booster from projectile	1002M2
	M309A1 projectile	1002E036
	Projectile shape charge disassembly	1224
	Resize cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, resize cartridge case	1001E003
	Kit, basic, resize	1001E019
	Kit, resize cartridge case	1001E037
	M5, M9 and M18 cartridge cases	1001E042
	M31 cartridge case	1001E043
	M35 cartridge case	1001E044
		1164
	M31A1 cartridge case	1164E001
	M35 cartridge case	1164E005
	M18 cartridge case	1164E006
	M9A1 cartridge case	1164E007
	Stop for drilling operations	1171
	Weigh propellant	2104
	Mark cartridge case base	2178
	Assemble and crimp	1001M1
	Shield, VPA	1001E001
	Kit, basic, assembly and crimping	1001E019
	M5, M9 and M18 cartridge cases	1001E064

End items	Operations performed	APE no.
CARTRIDGE, 75MM	M35 cartridge case	1001E065
		1010M2
	Kit, assembly and crimp	1010E001
		1220
	M48, M61, M66 or M338 with M18 cartridge case	1220E001
	TSO, M312 and M334 to cartridge case M35	1220E002
	Hold cartridges	1294
	Level black powder in blank cartridges M338, M349 and T165E11 cartridges	1123
	Rotate cartridges for painting adapter	2130M2
	Shield	2130E002
	Pull test (bullet pull)	1299
	M48, M61, M64, M66 and M388 cartridges	1299E003
	M309, M310 and M311 cartridges	1299E004
	M344 cartridge	1299E005
	M349 cartridge	1299E006
CARTRIDGE, 76MM	Pull projectile from cartridge case	1001M1
	Shield, VPA	1001E001
	Calibration	1001E011
	Kit, basic, pull apart	1001E019
	M42, M62, M93, M312 and M315 cartridges	1001E029
	M319, M339, M340, M352 and M361 cartridges	1001E030
	Collect propellant	1028
	Kit, exhaustor, centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003
	Prime and Deprime	1001M1
	Shield, VPA	1001E001
	Kit, basic, prime and deprime operation	1001E050
	M26 cartridge case	1001E055
	Prime and Deprime	1021M4
	Kit, holding shoes	1021E001
	Prime and Deprime	1106M1/1229M1
	M26 cartridge case	1106E007/1229E006
	M88 and M101 cartridge cases	1106E009/1229E008
	Prime and Deprime	2151
	M58 primer	2151E001

End items	Operations performed	APE no.
CARTRIDGE, 76MM	Hold projectiles	1065/1204/2097
	M42A1, M62, M62A1, M93A1, M166E2,	1065E006/
	M312, M312B1, M315, M339,	1204E006
	M340A1, M352, and M361 cartridges	
	Remove fuze from projectile	1002M2
	Base detonating	1002E004
	Point detonating	1002E007
		1153M1
	Base detonating M9A1, M66A1,	1153E006
	M66A2 & M68	
	Remove M5 series tracer from M319	1153E006
	Drill fuzewell cavities	1283
		1043
	Remove fuzewell liners	1128M1
		1140M2
	Expand fuzewell liners	2107
	Resize cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, resize cartridge case	1001E003
	Kit, basic, resize cartridge case	1001E019
		1001E037
	M26 cartridge case	1001E045
	M88 cartridge case	1001E046
		1164
	M88 cartridge case	1164E002
	M26 cartridge case	1164E008
	M101 cartridge case	1164E009
	Stop for drilling operations	1171
	Weigh propellant	2047
		2105
		1032
	Mark cartridge case base	2178
	Assemble and crimp	1001M1
	Shield, VPA	1001E001
	Kit, basic, assembly & crimping	1001E019
	M26 cartridge case	1001E066
	M88 and M101 cartridge cases	1001E067
		1010M2
	Kit, assembly and crimp	1010E003
		1220
	M26 cartridge case w/.150 crimp groove	1220E003

End items	Operations performed	APE no.
CARTRIDGE, 76MM	M88 cartridge case	1220E004
	M26 cartridge case w/.050 crimp groove	1220E005
	Hold cartridges	1294
	Level black powder in blank cartridge	1123
	Rotate cartridges for painting	2130M2
	Shield	2130E002
	Pull test (bullet pull)	1299
	M42, M62, M93, M312 and M315 cartridges	1299E007
	M319, M339, M340, M352 and M361 cartridges	1299E008
CARTRIDGE, 76MM/ 62 CALIBER	Pull apart cartridge	1001M1
	Shield, VPA	1001E001
	Kit, basic, pull apart	1001E019
	Kit, basic, accessories for pull apart	1001E088
	Gage, VPA alinement	1001E089
	Collect propellant	1028
	Kit, Exhauster, centrifugal	1028E001
	Kit control system, propellant discharge, pneumatic	1028E003
	Crimp case to projectile	1231
		2148M1
	Rotate cartridges for painting	2130M2
	Shield	2130E004
	Production packing depth for cartridge case	7073
	Kit, jaw/shoe	7073E003
CARTRIDGE, 3 INCH/ 50 CALIBER	Defuze cartridge	1002M2
	KIT, remote control	1002E042
	Pull apart cartridge	1001M1
	Shield, VPA	1001E001
	KIT, basic, pull apart	1001E019
	Gage, VPA alinement	1001E089
	KIT, pull apart	1001E090
	Collect propellant	1028
	KIT, exhauster, centrifugal	1028E001
	KIT, control system, propellant discharge, pneumatic	1028E003
	Prime and deprime	2203/2203E003
	Deprime	1011M5
	(screw primer)	1011E003
		1106M1
	(press primer)	1106E013
		1229M1
		1229E012

End items	Operations performed	APE no.
CARTRIDGE, 3 INCH/ 50 CALIBER	MK3, MK7 & MK9 cartridge cases	2197 2197E005 7032
	Mark cartridge case base	2178
	Hold projectile	1065 7023M1
	KIT, secure	1065E006 1204
	KIT, jaw	1204E006 1294 2097 7007 7041M1
	Stake auxiliary detonating fuze to fuze adapter	
	Production packing depth for cartridge case	7073
	KIT, jaw/shoe	7073E004
	Crimp cartr4idge case to projectile	1231 2148M1
	Drill Fuzewell cavities	7025
	KIT, cutter head	7025E009
	KIT, ADF cutter head	7025E011
	KIT, base fuze cutterhead	7025E012
	KIT, setup tooling	7025E018
	KIT, nose end	7025E024
	KIT for cartridge case	2203E003
CARTRIDGE, 81MM	Hold projectile	1204
	M43A1 and M43A1B1 cartridges	1204E009
	M57, M362, M370, M374 and M375 series cartridges	1204E014
	Kit, secure, M43A1	1065 1065E010
	Kit, secure, M57 & M362	1065E013 2097
	Remove ignition cartridge from fin assemble of M374 and M375 cartridge	2040
	Remove ignition cartridge housing M362 cartridges	1153M1

End items	Operations performed	APE no.
CARTRIDGE, 81MM	M362, M362A1, M370, M374, M374A2, M375A1 & M375A2 cartridges	1153E029
	M301A3 cartridge	1153E031
	Remove primer or ignition cartridge	1153M1
	M301A3, M362, M362A1, M370, M374, M374A2, M375, M375A1 and M375A2 cartridges	11532E032
	M43A1 cartridge	1148
	Remove fin assembly M3 and M6 fins	1222
		1153M1
		1153E014
		2128
	Remove fuze from projectile	1002M2
	M43A1B1 cartridge	1002E016
	M362 cartridge	1002E017
	M362, M374 and M375 cartridges	1002E018
		1153M1
	Kit, defuze	1153E024
	Kit, Remove M524 fuze from M362 cartridge	1153E020
	Resize fuze cavity, M362 cartridge	2052
	Replace obturating band	2136
	Stop for drilling operation	1171
	Derust projectile	2038
CARTRIDGE, 90MM	Pull projectile from cartridge case	1001M1
	Shield, VPA	1001E001
	Calibration	1001E011
	Kit, basic, pull apart	1001E019
	M71, M77, M79, M82, M133, M304, M313, M317, M318, M319, M332, M336 and M431 cartridges	1001E031
	M371 cartridge	1001E075
	M71 cartridge	2000
		2000E004
	Collect propellant	1028
	Kit, exhauster, centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003
	Prime and deprime	1001M1
	Shield, VPA	1001E001
	Kit, basic, prime and deprime operation	1001E050
	M19 and M28 cartridge cases	1001E058
		1021M4
	Kit, holding shoes for cartridge case	1021E001
		1106M1

End items	Operations performed	APE no.
CARTRIDGE, 90MM	Kit, basic, prime and deprime operation	1001E050
	M19 and M28 cartridge cases	1001E058
		1021M4
	Kit, holding shoes for cartridge case	1021E001
		1106M1
	M19, M27 or M108 cartridge cases	1106E010
		1153
	Deprime M371 HEAT cartridge	1153E002
		1229M1
	M19, M27 or M108 cartridge cases	1229E009
		2151
	M112 cartridge cases	2151E003
	M108 cartridge cases	2151E006
	Hold projectiles	1204
	M33, M71, M77, T91, T142E5, M304, M304A1, M313, M317A2, M318A1, M332, M333, M336, M353 and M382	1204E007
		1065
		1065E007
		2097
	M371 boom adapter removal	1065E015
	Remove fuze from projectile	1002M2
	Point detonating	1002E008
	(except T142 series projectile)	1002E010
	T142 series projectiles	1002E011
		1153M1
	Remove PD fuze	1153E005
	Remove BD fuze M82, M332A1 & M142E3	1153E006
	Remove nose cap from projectile	2081
	Drill fuzewell cavities	1283
		1043
		7025
	Kit, cutter head	7025E008
	Kit, setup tooling	7025E014
	Kit, projectile nose end	7025E024
	Expand fuzewell liners	2107
	Remove fuzewell liner	1128M1
		1140M2
	Projectile shape charge disassembly	1224
	Remove boom adapter from boom assembly	1065
	M371 cartridge	1065E015

End items	Operations performed	APE no.
CARTRIDGE, 90MM	Remove fin and boom from projectile	1227
	M371 cartridge	1227E001
	Remove M5 tracer	1153M1
		1153E006
	Assemble fuze to projectile	1247
	Assemble and torque nose cap	1250
	Resize cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, resize cartridge case	1001A003
	Kit, resize cartridge case	1001E003
	Kit, basic, resize cartridge case	1001E019
	Kit, basic, resize cartridge case	1001E037
	M19 and M108 cartridge cases	1001E047
		1164
	M19, T24 and M108 cartridge cases	1164E010
	M112 cartridge cases	1164E015
	Stake primer to cartridge cases	1254M1
	M53 primer into M108 cartridge case	1254E002
	Stop for drilling operations	1171
	Trim cartridge case	1162M1
	Gage, GO-NO GO	1162E001
	Brass cartridge case	1162E002
	Weigh propellant	2105
		1032
	Level black powder in blank cartridges	1123
	Mark cartridge case base	2178
	Assemble and crimp	1001M1
	Shield, VPA	1001E001
	Kit, basic, assembly and crimping	1001E019
	M19 and M27 cartridge cases	1001E068
		1010M2
	Kit, assembly and crimp	1010E004
	M371 cartridges	1010E008
		1220
	M71 cartridge	1220E006
	M307 cartridge	1220E007
	Pull test (bullet pull)	1299
	M77, M79, M82, M133, M304, M313, M317, M319, M332 and M336 cartridges	1299E009
	M71 cartridge	1229E010
	Rotate cartridges for painting	2130M2
	Shield	2130E001

End items	Operations performed	APE no.
CARTRIDGE, 105MM	Pull projectile from cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, basic, pull apart	1001E019
	M323 and M325 cartridges	1001E005
	M456 cartridge	1001E006
	Calibration	1001E011
	M341 cartridge	1001E032
	M326 cartridge	1001E033
	M345 cartridge	1001E034
	M393A1, M416 and M494 cartridges	1001E074
	M392 and M728 cartridges	1001E087
		2000
	M323, M324 and M325 cartridges	2000E008
	M393 and M416 cartridges	2000E007
	M392 cartridge	2000E006
	Collect propellant	1028
	Kit, exhaustor, centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003
	Prime and Deprime	1001M1
	Shield, VPA	1001E001
	Kit, basic, assembly	1001E019
	Kit, basic, prime and deprime operation	1001E050
	M32 and M95 cartridge cases	1001E058
	M14 and M15 cartridge cases	1001E059
	Primer remover and inserter	2151
	M80 and M86 primers on M115 and M150 cartridge cases	2151E004
	M83 primer on M148 cartridge case	2151E005
	M63 primer on M341 cartridge case	2151E007
	M80, M83 and M86 primers from M115, M148 and M150 cartridge cases	2197
		2197E006
	Primer (screw type) remove from cartridge cases	1011M5/2203
	M86 primer from M115, M148 and M150 cartridge cases	1011E001/2203E001
	L4 primers from L36 cartridge case	1011E002/2203E002
	M115, M148 and M150 cartridge cases	1021M4/1021E002
	Primer (press type) remove from cartridge case	1229M1
	M32, M90 and M95 cartridge cases	1229E009
	M14 and M15 cartridge cases	1229E010
	Hold projectile	1204/1065

End items	Operations performed	APE no.
CARTRIDGE, 105MM	M1, M45, M60, M67, M84B1, M84B2, T319E44, M314A2B1, M325, M326, M327, M328 and M360 cartridges	1204E016/1065E008 2097
	Ammunition component press	2160
	Table, ammunition component indexing	2160E001
	Insert base plug in M392A2 projectile	2160E002
	Remove fuze from projectile	1002M2
	Kit, remove PD fuze	1002E009
	M92 BD fuze (except T139E45 cartridge)	1002E012
	T139E45 cartridge	1002E013
	Remove fuze from cartridges	1153M1
	PD fuzes	1153E005
	BD fuzes from M326 cartridge and/or M5 tracers	1153E006
	Remove base fuze and/or tracers from projectiles	1002M2
	BD fuze M534	1002E024
	Remove fuzewell liner	1128M1 1140M2
	Remove M13 tracer from M392A2 projectile	2161
	Remove base plate from projectile	1002M2
	M84 projectile	1002E022
	Remove centering band from projectile, M392A2 (L36A1)	2153
	Remove rotating band from M392A2 projectile	2162
	Turning projectile centering band M392A2	2155M1
	Kit, centering band diameter check	2155E001
	Kit, projectile support	2155E002
	Kit, machine setup	2155E003
	Hold projectile	1065
	Remove boom adapter from boom Assembly: M341 cartridge	1065E017
	Ultrasonic inspection M392A2 sub- projectile	2163
	Transducer (cylindrical focus)	2163E001
	Transducer (spherical focus)	2163E002
	Waterproof cable	2163E003
	APDS-T Subprojectile handling equipment	2163E004
	Battery charger	2163E005
	Alarm light kit	2163E006
	Alinement projectile	2163E007

End items	Operations performed	APE no.
CARTRIDGE, 105MM	Remove fin & boom from projectile	1227
	M341 cartridge	1227E002
	Projectile with shaped charge disassembly	1224
	Projectile holding rack	2154
	Projectile resize fixture (L36)	2167
	Projectile turning fixture, M392A2	2158
	Projectile concentricity check L36, M392A2	1960M1
	Adapter, standard projectile setup	1960E002
	Torque test APDS-T projectile	1961
	Drill fuzewell cavities	1283
	Kit, powered thread cleaner	1283E001
		7025
	Kit, cutter head	7025E008
	Kit, setup tooling	7025E015
	Kit, projectile nose end	7025E024
		1043
	Expand fuzewell liners	2107
	Kit, remote control	2107E001
	Remove bottom of fuzewell cavity of smoke projectile (M84B1)	2166
	Resize canister cavity of smoke projectile (M84)	2167
	Assemble fuze to projectile	1247
	Resize cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, resize cartridge case	1001E003
	T43, M90 and M95 cartridge cases	1001E004
	Kit, basic, resize	1001E019
	Kit, basic, resize cartridge case	1001E037
	M32 cartridge case	1001E048
	M94 and M95 cartridge cases	1001E049
	M148, M148A1B1 and M150 cartridge cases	1001E079
	M115 cartridge case	1001E083
		2164
		1164
	M32 cartridge case	1164E011
	T43 cartridge case	1164E012
	M90 and M95 cartridge cases	1164E013
	Stake primer to cartridge case and continuity tests	1254M1
	M115 AND M148 cartridge cases	1254E001
	Torque test primer, M392A2	1962M1
	Kit, torque adapter, M80A1, round pin	1962E002

End items	Operations performed	APE no.
CARTRIDGE, 105MM	Kit, torque adapter, M80A1, slotted	1962E003
	Kit, continuity test	1962E004
	Trim cartridge case	1162M1
	M148 cartridge case	1162E003
	Kit, gage, GO-NO-GO	1162E004
	Mark cartridge case base	2178
	Weigh propellant	1032
		2105
	Propellant check level (M392A2)	2159
	Kit, extension	2159E001
	Assemble and crimp	1001M1
	Shield, VPA	1001E001
	Kit, basic, assembly and crimping	1001E019
	M32 cartridge case	1001E069
	M90 and M95 cartridge cases	1001E070
	M392A1 cartridge with M115B1 cartridge case	1001E077
	M456A1 cartridge	1001E080
		1010M2
	Kit, assembly and crimp	1010E005
	M456A1 cartridge	1010E009
	Assemble and crimp (eight stab type)	1220
	M325 and M326 cartridges	1220E008
	M456 cartridge	1220E009
	Cartridge, concentricity check M392	1960M1
	Adapter, complete cartridge	1960E001
	Adapter, standard complete cartridge setup	1960E003
	Pull test (bullet pull)	1299
	M456 cartridge	1299E011
	M323 and M325 cartridges	1299E012
	M344 cartridge	1299E013
	M326 cartridge	1299E014
	M341 cartridge	1299E015
	M345 cartridge	1299E016
	M392 cartridge	1299E017
	Calibration	1299E018
	Stop for drilling operations	1171
CARTRIDGE, 106MM	Pull projectile from cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, calibration	1001E011
	Kit, basic, part apart	1001E019

End items	Operations performed	APE no.
CARTRIDGE, 106MM	M344 cartridge	1001E035
	M346 cartridge	1001E036
	Collect propellant	1028
	Kit, exhauster, centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003
	Prime and Deprime	1001M1
	Shield, VPA	1001E001
	Kit, basic, prime and deprime operation	1001E050
	M93 and M94 cartridge cases	1001E058
		1011M5
		1106M1
	M93 and M94 cartridge cases	1106E010
		1229M1
	M93 and M94 cartridge cases	1229E009
	Resize cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, resize cartridge case	1001E003
	M93 and M94 cartridge cases	1001E004
	Kit, basic, resize	1001E019
	Kit, basic, resize	1001E037
	M93 and M94 cartridge cases	1001E049
		1164
	M93 and M94 cartridge cases	1164E013
	Double crimped cartridge cases	1164E014
	Weigh propellant	1032
		2105
	Mark cartridge case base	2178
	Hold projectile	1204
	Kit, jaw, hold projectile	1204E016
	Hold projectile	2097
	Remove fuze from projectile	1002M2
	T139E47 cartridge	1002E013
	M344 cartridge	1002E023
		1153M1
	M346A1 cartridge	1153E006
	Drill fuzewell cavities	1283
	Expand fuzewell cavities	2107
	Remove base plug from projectile	1002M2
	M345 cartridge	1002E021
	Assemble fuzes to projectiles	1247

End items	Operations performed	APE no.
CARTRIDGE, 106MM	Vibrate cartridge and seat projectile	7057
	Hold cartridge	1294
	Assemble and crimp	1001M1
	Shield, VPA	1001E001
	Kit, basic, assembly and crimping	1001E019
	M94 cartridge case	1001E070
	M93 and M94 cartridge case	1001E071
		1010M2
	Kit, assembly and crimp	1010E005
	M94B1 cartridge case	1010E011
	Pull test (bullet pull)	1299
	M346 cartridge	1299E016
CARTRIDGE, 4.2 INCH	Hold projectile	1204
	Kit, jaw	1204E016
		1065
	Kit, secure M329	1065E008
		2097
	Remove fuze from projectile	1153M1
	Kit, defuze	1153E024
	Remove fuzewell liner	1128M1
		1140M2
	Drill fuzewell cavities	1283
		1043
		2052
	Expand fuzewell liners	2107
		7025
	Remove parachute and illuminating canister	1925M1
	Stop for drilling operations	1171
	Assemble fuze to projectile	1247
	Zone weight projectile	2089
	Derust projectile	2038
CARTRIDGE, 120MM	Hold projectile	1065
	T15E1, T16E1, M61A1, M73, T115E3, T116E6, T147E5, M358 and M359 projectile	1065E011
	Kit, jaw	1204
		1204E001
		2097
	Drill fuzewell cavities	1283
	Kit, powered thread cleaner	1283E001
		1043
	Expand fuzewell cavities	2107
	Kit, remote control	2107E001
	Remove fuzewell liner	1128M1
		1140M2

End items	Operations performed	APE no.
CARTRIDGE, 120MM	Prime and deprime	1021M4
	Kit, holding shoes	1021E001
		2197
	M109 and XM111 cartridge cases	2197E002
	Remove closing plug	1003M1
	M2E3 closing plug	1003E005
	Remove M2E3, M5, M6 and M7 closing plugs	1919
	Mark cartridge case base	2178
	Stop for drilling operations	1171
	Collect propellant	1028
	Kit, exhauster, centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003
PROJECTILE AND PROPELLING CHARGE ASSEMBLY 5 INCH 38 & 54 CALIBER	Hold projectile	2097
		7007
		7014
		7023M1
	Defuze - deplug	7040A
	Remove gas check gasket	7042
	Drill projectile fuze cavities (5"/38)	7025
	Kit, recap cutter head	7025E002
	HE-CVT MK 66 and MK 379 ADF cutter head	7025E003
	Kit, nose end drill bushing	7025E023
	Drill projectile fuze cavities (5"/54)	
	MK 64, MK 65 and MK 396 ADF cutter head	7025E004
	MK 61 Mod 0 cutter head	7025E005
	MK 360, MK 361 and MK 362 VT & FCL VT MK 73	7025E006
	Kit, nose end drill bushing	7025E022
	Drill 5"/38 & 5"/54 projectile fuze cavities	
	MK 51 Mod, VT & IR and MK 41 Mod 0, VT cutter head	7025E001
	MK 54 ADF cutter head	7025E007
	MK 83 cutter head	7025E010
	Kit, base fuze cutter head	7025E012
	Kit, setup tooling	7025E019

End items	Operations performed	APE no.
PROJECTILE AND PROPELLING CHARGE ASSEMBLY 5 INCH 38 & 54 CALIBER	Stake auxiliary detonating fuze adapter Remove plug from cartridge case Collect propellant Kit, exhauster, centrifugal Kit, control system, propellant discharge pneumatic Prime - deprime cartridge cases 5"/38 MK 5, MK 8, 10 & 11 and 5"/54 MK 6, 7 & 9 cartridge cases Prime - deprime cartridge cases (screw-type) 5"/38 and 5"/54 Resize cartridge case Shield, VPA Kit, basic, resize Gage, alinement 5"/38 cartridge case 5"/54 cartridge case Primer (screw type) Kit, holding shoe for cartridge case Clean exterior of cartridge cases Production packing depth for cartridge cases Kit, jaw/shoe Crimp plug to cartridge cases Mark cartridge case base Primer torque test Kit, holder Kit, MK 42 Primer resistance test Impact test propelling charge assemblies Transfer projectiles	7041M1 7019 1028 1028E001 1028E003 2197 2197E003 2203 2203E004 1001M1 1001E001 1001E019 1001E089 1001E093 1001E094 1021M4 1021E001 7032 7073 7073E001 7019 2178 1962M1 1962E005 1962E006 7020 7031
CARTRIDGE, 152MM	Cartridge case cutoff Remove cartridge case Locking ring Remove windshield cap and continuity test	2170 1002M2 1002E043 2169
PROJECTILE AND PROPELLING CHARGE 6-INCH 47 CALIBER	Hold projectile Remove gas check gasket Drill projectile fuze cavities	2097 7007 7023 7042 7025

End items	Operations performed	APE no.
PROJECTILE AND PROPELLING CHARGE 6-INCH 47 CALIBER	Kit, cutter head	7025E009
	ADF, cutter head	7025E011
	Kit, base fuze cutter head	7025E012
	Kit, setup tooling	7025E020
	Kit, nose end drill bushing	7025E023
	Stake auxiliary detonating fuze to fuze adapter	7041M1
	Collect propellant	1028
	Kit, exhaustor, centrifugal	1028E001
	Kit, control system, propellant discharge pneumatic	1028E003
	Prime - deprime cartridge cases	2197
	MK 4, MK 6 and MK 7 cartridge cases	2197E004
		2203
	Kit, deprime-prime cartridge case	2203E005
	Resize cartridge case	1001M1
	Shield, VPA	1001E001
	Kit, basic, resize	1001E019
	Gage, alinement	1001E089
	Kit, resize cartridge case	1001E092
	Prime (screw type)	1021M4
	Kit, holding shoe for cartridge case	1021E001
	Clean exterior of cartridge cases	7032
	Production packing depth for cartridge cases	7073
	Kit, jaw/shoe	7073E002
	Mark cartridge case base	2178
	Transfer projectiles	7031
PROJECTILE AND PROPELLING ASSEMBLY 8-INCH 55 CALIBER	Hold projectile	2097
	Remove gas check gasket	7042
	Defuze (remote control) nose & base fuzes	7066
	Kit, fuze remover	7066E001
	Drill projectile fuze cavities	7025
	Kit, cutter head	7025E009
	Kit, ADF cutter head	7025E011
	Kit, base fuze cutter head	7025E012
	Kit, setup tooling	7025E021
	Kit, nose end drill bushing	7025E023
	Collect propellant	1028
	Kit, exhaustor, centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003

End items	Operations performed	APE no.
PROJECTILE AND PROPELLING CHARGE ASSEMBLY 8-INCH 55 CALIBER	Prime-deprime cartridge case MK 1 Mod 0, 1 and 2 Clean exterior of cartridge case Production packing depth for cartridge cases	2197 2197E001 7032 7073
PROJECTILE 16-INCH 50 CALIBER	Carrier, projectile Kit, AP projectile Hold projectile Defuze nose and base fuze Tooling, renovation Press gas check seal Kit, AP projectile Clean projectile (swing brush) Kit, dust collector Stake auxiliary detonating fuze to fuze adapter Scale, projectile weighing	7072 7072E001 7070 7066 7068 7071 7071E001 7067 7067E001 7041M1 7069
PROJECTILE 37MM THRU 280MM	Clean projectiles 75MM through 155 projectiles 8-inch through 240MM projectiles Kit, duster collector Kit, 60MM projectile Deband projectiles 37MM and 40MM projectiles 57MM projectile 75MM projectile 76MM projectile 90MM projectile M71 105MM projectile 106MM projectile 120MM projectile 155MM projectile 280MM projectile 8-inch except M106 and 240MM projectiles 155MM projectile 175MM projectile 120MM projectile Drillout/resize projectile fuze cavities Kit, thread cleaner Expand fuzewell cavities Kit, remote control	1029 1105M1 1105E001 1105E002 1105E004 1200 1200E001 1042M3/1208 1208E004 1042E002/1208E002 1042E003/1208E003 1042E004/1208E003 1042E005/1208E001 1042E006/1208E005 1208E005 1042E007 1042E008 1212M1 1212E001 1212E002 1212E003 1212E004 1212E005 1283 1283E001 2107 2107E001 1043

End items	Operations performed	APE no.
PROJECTILE	Torque, base plug on projectile 8-inch, HE, M404	2171
37MM THRU	Zone weigh projectiles, 75MM thru 120MM	2089
280MM	Zone weigh projectiles, 155MM thru 240MM	2090
	Push base from projectile, 155MM, M118	2094
	Test air tight seal between ogive & projectile (155MM M483A1)	1925M1
	Kit, 8-inch projectile	2222
	Remove obturator from 155MM M549 & M549A1 projectiles	2222E001
	Install obturator to 155MM M549/M549A1 projectiles	2229
		2230
BOMBS	Abrasive blast cleaning machine	1035
	Paint spray booth	1036
	Warm air makeup system	1037
	Electric hoist	1039
	Test fuze cables (MK80 thru M84 bombs)	7021
	Test suspension lugs (500 lb & 750 lb GP Bombs)	1201
	Defuze and remove fuzewell plug from 20 to 23 pound fragmentation bomb	1002M2
	Fuze	1002E019
	Fuzewell plug	1002E020
GRENADE	Hold grenades or fuzes for x-ray	1288
	Provide operator protection	1213M1
	Kit, Dud removal	1213E002
	Remove fuze from grenade	1202M1
	M26, M26A1 and M61 hand grenades	1202E003
	MK2 hand grenade	1202E004
	M34 WP smoke grenade	1202E005
	M6, M7, M8, M14 and M18 chemical grenades	1202E006
	M15 WP smoke grenade	1202E007
	MK3A2 offensive hand grenade	1202E009
	M33 and M67 delay frag grenades and M67 practice grenade	1202E010
	M33 and M67 hand grenades	2156
	Device, access door lifting	2156E001
	M15 smoke grenade	2156E002
	M34 smoke grenade	2156E003
		2156E004

End items	Operations performed	APE no.
GRENADE	Remove fin assembly	1153M1
	M19 rifle grenade	1153E028
	Stake grenade fuze	1065
	M204A1 fuze	1065E001
	Shield staking operation	1253
ROCKET 66MM, M74	Open polystyrene box	2186
	Hold four round	2179
	Clip handling fixture	2179E001
	Remove tube cap	2181
	Remove retaining screw	2187
	Remove cover screw	2187E001
	Remove retainer	2180
	Tools for fin spring	2190
	Clip hole location	1971
	Warhead OD Comparator	1970
	Conductivity test warhead	1972
	Kit, digital thermocouple readout meter	1972E001
	Oven, Preconditioning	1916M1
	Fixture, Visual Inspection	2184
	Retainer Assembly	2185
	Dispenser, RTV	2193
	Dispenser vermiculite	2021M1
	Kit, vermiculite dispense	2021E001
	Seal barrier bag	2188
	Vacuum cleaner	2043
	Box assembly holder	2189
	Shaker box packing	2194
	Stop for drilling operation	1171
ROCKET 66MM, M72	Hold rocket	1065
	Kit, accessory	1065E049
	Pull warhead from motor	1001M1
	Shield	1001E001
	Kit, pull apart	1001E082
	Gage wall thickness	1272
	Renovate rocket	1215M1
	Kit, hand tool for assembly rocket	1215E049
	Kit, disassembly rocket	1215E050
	Ultrasonic test fuze closure	2062
	Kit, fuze closure	2062E001
	Stop for drilling operation	1171
ROCKET, 2.36 INCH	Disassemble rocket	1002M2
	Kit, M10 rocket	1002E030

End items	Operations performed	APE no.
ROCKET, 2.75 INCH	Continuity test for rocket motor	1001M1
	Kit, shield	1001E001
	Holding accessories for testing	1001E014
	Modification shield	1001E015
	Rocket motor continuity test	1001E017
	Holding fixture (rocket motor w/solid bulkhead closures)	1001E078
		1189
	Kit, continuity testing for rocket motor	1189E001
	Kit, rocket motor w/solid bulkhead closure	1189E004
	w/XM229 or M151 warheads	1189E015
	Kit, rocket motor MK40 w/warhead	1189E016
	Kit, rocket motor MK40	1189E017
	Kit, rocket motor MK66 Mod 1	1171
	Stop for drilling operation	
ROCKET, 3.5 INCH	Continuity test for rocket motors	1001M1
	Shield	1001E001
	Holding accessories for testing	1001E013
	Modification shield	1001E015
	Rocket motor continuity test	1001E016
	Hold rocket motor on warhead	1204/1065
	M28A2 and M29 rocket warhead	1204E010 /
		1065E004
		1215
	Renovate rocket	1215E002
	Replace igniter M20A1B1 from rocket	
	Tighten or replace rivets rocket motor	1215E003
		1215E004
	Hand tools to assembly rocket	1215E012
	Contain burster on M30 rocket	1189
		1189E002
	Rocket motor	1189E012
	Shunt accessory	2099
	Disassemble rocket M30 WP	2102
	Weight propellant	1032
		1002M2
		1002E025
	M28, M29 and M30 rockets	
	M28, M29 and M30 rockets between motor & fuze	1002E034
	M28, M29 and M30 rockets between warhead & fuze	1002E035
	or between motor & fuze	
	Kit, renovation	1002E037
	Stop for drilling operation	1171

End items	Operations performed	APE no.
ROCKET, 4.5 INCH	Remove warhead from rocket	1240
		1210
	Kit, Remove warhead from rocket	1210E002
ROCKET, 115MM	Remove warhead from rocket	1240
	Remove M36 burster from chemical rocket	2212
	Remove M34 burster from chemical rocket	2213
ROCKET, 5 INCH	Continuity test for rocket	1189
	Kit, rocket motor	1189E003
	Kit, rocket M3 JATO motor	1189E011
ROCKET, HONEST JOHN SPIN ROCKET	Continuity test for spin rocket	1189
	M37 and M37A1 spin rocket	1189E013
	M7A2B1 spin rocket	1189E014
FUZE	Remove M21A1 booster and tracer from base fuze	1002M2
	Tracer and base fuze M534	1002E024
	Booster from 75MM, M309A1 projectile	1002E036
	Booster from standard contour fuze	1002E038
	Remove booster from fuze	1118M2
	AN-M103, M139, M140, M163, M164, M165 and M167 fuzes	1118E001
	M145 fuze	1118E003
	M110, M158 and M193 fuzes	1118E004
	M120 and M170 fuzes	1118E005
	M147 and M155 fuzes	1118E006
	M52 fuze	1118E007
	M51A5, M500, M502A1, M508 and M518 fuzes	1118E012
	M524 fuze	1118E020
	Remove booster cup from fuze	1153M1
	M52A2 fuze	1153E016
	Remove booster and/or cup from standard contour fuze	
		1153E027
	Crimp ogive on fuze	1220
	M90	1220E011
	Clean fuze thread	1243
	Deburr standard contour fuze	1251
	Renovate M52A2 fuze	1122
	Stake booster to fuze	2057
	Stake auxiliary detonating fuze to fuze adapter 3"/50, 5"/38, 5"/54 and 16"/50	7041M1

End items	Operations performed	APE no.
FUZE	Stop for drilling operation	1171
	Assemble or disassemble M605 mine fuze	2061
	Obliterate stamp markings	1146
		2055
	Demilitarize booster	1229M1
	M21A4	1229E016
	Torque booster to fuze	1263
	Torque M54, M55 and M500 service fuze	1223
	Test T361E2 fuze container for leaks	1252
	Kit, container tester	1252E002
	Remove fuzes, plugs and adapters from hose/base of projectile	7040
	Remove rocket warhead fuze and adapter	7040A
	M55 chemical rocket warhead fuze	7040E001
	M55 chemical rocket warhead adapter	7040E002
	Remove auxiliary booster from fuze	1118M2
	M90 fuze	1118E017
	Separate booster cup from booster	
	M21A4	1118E013
	Remove booster from M52 fuze	1206
	Remove bottom closing screw assembly from fuze	1118M2
	M78 fuze	1118E010
	Remove and replace bottom closing screw assembly from fuze	
	M48, M51 and M500 fuzes	1118E011
	Remove detonator assembly from M404A2 fuze	
	M41 detonator	1118E018
	Detonator cap housing	1118E019
		1229M1
	Kit, remove detonator from M404A2 fuze	1229E020
	Remove head assembly from standard contour fuze	2083
	Remove head from fuze	1118M2
	M52A2 fuze	1118E002
	Remove head from adapter	1153M1
	M519 fuze	1153E003
	Remove fuze body from base detonating fuze head	1118M2
	M62 base detonating fuze	1118E016
	Remove windshield of ogive from M90A1 fuze	2139

End items	Operations performed	APE no.
DEMILITARI- ZATION EQUIP.	Breakdown 20MM cartridges	2001M1
	M187 and M204 cartridge cases	2001E001
	M103 cartridge case	2001E002
	M21 cartridge case	2001E003
	Navy 20MM cartridges	7033
	Collect propellant	1028
	Kit, exhauster centrifugal	1028E001
	Kit, control system, propellant discharge, pneumatic	1028E003
	Control demolition of explosives	1055M2
	Cartridge case cutoff, 152MM	2170
	Deactivate small items containing up to 600 grains of explosive	1236
	Kit, air pollution control system	1236E010
	White phosphorus	1400
	Deband projectiles 37MM thru 106MM	1208
	90MM projectiles, M71	1208E001
	57MM projectiles	1208E002
	75MM and 76MM projectiles	1208E003
	37MM and 40MM projectiles	1208E004
	105MM and 106MM projectiles	1208E005
	Deband projectiles 120MM thru 280MM	1212M1
	280MM projectiles	1212E001
	8-inch and 240MM projectiles except 8" M106	1212E002
	155MM projectiles	1212E003
	175MM projectiles	1212E004
	120MM projectiles	1212E005
	Deband projectiles 57MM thru 155MM	1042M3
	57MM projectiles	1042E002
	75MM projectiles	1042E003
	76MM projectiles	1042E004
	90MM projectiles	1042E005
	105MM projectiles	1042E006
	120MM projectiles	1042E007
	155MM projectiles	1042E008
	Pick-up fine particles of explosives	1061
		2043
		3041A
		3041B
	Projectile saw (75MM to 120MM)	2175
	Remove windshield cap & continuity test, 152MM	2169
	Small item shear	2196
	M21A1 boosters	2196E001
	40MM, M406 grenades	2196E002

End items	Operations performed	APE no.
DEMILITARIZATION EQUIP.	40MM, M386 grenades	2196E003
	M505A1 fuze w/M21A4 boosters	2196E004
	Unfuze M26 hand grenades	2196E005
	M42 and M46 ICM grenades	2196E006
	Trap explosive dust in water	2042
	View hazardous disassembly operations	1072M2
	Washout explosives from projectiles, bomb, mine, etc.	13COM1
	Transport explosive wastes for disposal	1328
	Disassembly rocket motor from demolition kit (M180)	2219
CARTRIDGE AND PROPELLANT STORAGE CASE	Clean and derust	1029
	Kit, empty 90MM storage case & 155MM propellant container	1029E001
	Kit, feed conveyor	1029E002
	Kit, takeoff conveyor	1029E003
	Clean exterior of 3" thru 16" cartridge storage container	7032
		1105M1
	75MM through 8-inch cartridge storage cases	1105E003
	Kit, dust collector	1105E004
		1200

End items	Operations performed	APE no.
FIBER CONTAINERS	Punch pressure relief holes in fiber containers	1088
		1221
	Hold small container when removing lid and sealing tape	1195
	Remove lids from small containers	1159
	Pull lids from fiber containers	1003M1/1270
	40MM through 57MM containers	1003E001
	40MM through 60MM containers	1270E001
	75MM through 81MM containers	1003E002/ 1270E002
	90MM through 105MM containers (except HEAT ammunition)	1003E003/ 1270E003
	90MM through 4.2" mortar	1003E004
	120MM containers	1137
	Apply sealing tape to fiber and metal containers	
	Kit, tape cutter	1137E001 1209M1
	Kit, apply three wraps of tape	1209E001
	Kit, 2.75" rocket (up to 68" length)	1209E003
		1004M1
	Hermetically seal M20 and M22 containers	1066
GENERAL AMMUNITION MAINTENANCE EQUIPMENT	Collect propellant	1028
	Kit, exhauster, centrifugal	1028E001
	Kit, control system, propellant discharge pneumatic	1028E003
	Ammunition cleaning	1200
	Clean 3" to 16" diameter powder cans (NAVY)	7032
	Heat sealing compound for dip coating	1086 1286
	Pneumatic lid remover	1003M1
	40MM thru 57MM fiber containers	1003E001
	75MM thru 81MM fiber containers	1003E002
	90MM thru 105MM (except 105MM HEAT) fiber containers	1003E003
	120MM fiber containers	1003E004
	Kit, modify control system	1003E006
	Jungle pack ammunition	1278M1
	Kit, centering band holding rack	1278E001
	Kit, counter balance for dip tank cover	1278E002
	Kit, obturator holding rack	1278E003

End items	Operations performed	APE no.
GENERAL	Test metal containers for leaks	1052M1
AMMUNITION		1252
MAINTENANCE	M542 fuze containers	1252E002
EQUIPMENT		1958M1
	M548 and M549 metal container	1958E001
	M621 container liner	1958E002
	View hazardous disassembly operations	1072M2
	Weigh various items and components	2044M1
		2045M1
		2046
		2089
		2090
		2094
		2101
		2102
		2103
		2104
		2105
		2106
		1032
		7069
	Paint projectiles and storage containers	1045M1
		1069M1
		1070M1
		1205M1
		1214M1
		1280M1
		2130M2
	Kit, 90MM shield	2130E001
	Kit, 75MM or 76MM shield	2130E002
	Kit, foot valve	2130E003
	76MM complete round (NAVY)	2130E004
	3"/50 complete round	2130E005
	Clean projectiles and bombs up to 3,000 lbs.	1035
	Lift projectiles and bombs up to 3,000 lbs.	1039
	Paint booth for projectiles and bombs	1036
	Warm air system	1037
	Remove rust, corrosion and paint from projectiles and bombs	1507
	Remove rust, corrosion and paint from projectiles and metal containers	1029
	Kit, clean empty 90MM storage cases & 155MM propellant containers	1029E001

End items	Operations performed	APE no.
GENERAL	Kit, feed conveyor	1029E002
AMMUNITION	Kit, takeoff conveyor	1029E003
MAINTENANCE	Clean and derust projectiles and storage containers	1105M1
EQUIPMENT	Kit, derust 75MM thru 155MM projectiles	1105E001
	Kit, derust 8-inch thru 240MM projectiles	1105E002
	Kit, derust cartridge storage cases (75MM thru 8-inch)	1105E003
	Kit, dust collector	1105E004
	Remove rust, corrosion and paint from small items	1243
	Seal metal can	1066
		2091

APPENDIX C
PREPARATION AND HANDLING OF
AMMUNITION PECULIAR EQUIPMENT
FOR SHIPMENT AND STORAGE

Section I. INTRODUCTION

C-1. Scope

a. This appendix contains instructions for the preparation and handling of Ammunition Peculiar Equipment (APE) for shipment and storage. It applies to equipment which has been inspected, tested and determined to be suitable for retention in the APE system. The procedures and methods contained herein provide uniform guidance on the minimum requirements for disassembly, inspection, cleaning, preservation-packaging, packing, marking, blocking, bracing and skidding prior to shipment or storage. Storage requirements include maintenance and surveillance of equipment throughout the storage period.

b. The provisions of this appendix apply to all organizations controlling APE to be shipped, placed in storage, or laid away for future use.

C-2. Definitions

For the purpose of this appendix, the following definitions apply.

a. Cleaning. Cleaning is a process accomplished by a variety of methods, and techniques, to remove all sludge, chips, abrasives, dirt, rust and other harmful foreign matter.

b. Compressed air, moisture-free. Moisture-free compressed air is obtained by utilizing properly maintained traps, filters and desiccators in the source system.

c. Disassembly. Disassembly means the removal of only those major and minor assemblies and components, required to provide access to machine areas for inspection, cleaning, preservation and preparation for shipment.

d. Documentation. Documentation consists of packing lists, inspection and test reports, operating and installation instructions, diagrams of electrical, fluidic, pneumatic and hydraulic systems and utility connections. When specified, the documentation shall include photographs, manufacturing procedures and other required technical data.

e. Equipment, nonseverable. A type of plant equipment which, due to size or design, cannot be removed economically from its installed position for storage or shipment.

f. Exercising. Periodic operation of a machine under no-load conditions to distribute lubricants or preservatives.

g. Shipping Document. A document, prepared on DD Form 1149, Requisition and Invoice/Shipping Document, or DD Form 1348, Single Line Item Requisition System Document, which directs or authorizes movement, and transfer of accountability of APE items reportable to AMCCOM.

h. Owning Agency. The organization which has accountability for APE.

i. Packing List. A packing list is a document used to identify unitized loads packed with unlike

items, or a single stock numbered item comprised of unlike items, where full description of the contents is not authorized, or cannot be shown on the container.

j. Preservation. The application or use of adequate protective measures to prevent deterioration due to environmental conditions.

k. Standby-in-Place. Equipment stored in its original, or last, operational position and connected to power.

l. Adjacent Storage. Storage of equipment in the vicinity of the premises of the user.

m. Storage-on-Site. Equipment stored on the premises of the user, but removed from operating position.

n. User. The government activity or contractor operating, or proposing to operate, equipment.

Section II. GENERAL REQUIREMENTS

C-3. Program Requirements

The degree of protection to be applied to APE for shipment or storage depends on the conditions which can be foreseen and those which can be reasonably anticipated. Adequate, but not excessive, protection shall be provided to prevent damage or deterioration. Levels of protection are prescribed with the objective of providing selective standards for preservation packaging and packing appropriate to the conditions to be encountered. Items shall be preserved-packaged and packed for shipment in accordance with level/

method specified in the shipping document. Items previously prepared to a higher level shall not be reworked to conform to any lower level(s) specified in the shipping document with the possible exception of packing of items for air shipment. Items previously prepared at a lower level shall be processed to conform to any higher level(s) specified in the shipping document. It is essential that decisions concerning actions in accordance with this appendix be made by, or based on the recommendations of, qualified personnel thoroughly trained and experienced in this field.

C-4. Levels of Protection

Unless otherwise specified, the following levels shall apply equally to preservation-packaging and packing.

a. Level A. This level is the degree of preservation or packing required for protection of materiel against the most severe conditions known or anticipated to be encountered during shipment, handling and storage. Preservation and packing designated level A will be designed to protect materiel against direct exposure to extremes of climate, terrain, operational and transportation environments without protection other than that provided by the pack. Normally, level A protection is provided for overseas shipment of APE and retention in uncontrolled storage.

b. Level B. This level is the degree of preservation or packing required for protection of materiel under known favorable conditions during shipment, handling and storage.

c. Industrial. This level may be utilized whenever logistical conditions justify and may be also used to satisfy level A or B requirements whenever the technical design details of the package meet all conditions of the level of protection specified. Industrial packaging must protect items against physical and environmental damage during shipment, handling and storage.

d. Selection of Levels. If no level of protection is specified, selection of the appropriate level shall be made in accordance with

Joint Regulation "Preservation-Packaging, Packing and Marking of Items of Supply" (AR 700-15; NAVSUP 4030.28; AFT 71-6; MCO 4030.33; DLAR 4145.7), using the level most suited to the circumstances. When a combination of conditions used for determination of levels falls within more than one level, the highest of these levels shall apply.

C-5. Basic Requirements

Certain requirements are applicable to all programs involving shipment or storage of APE. The following steps are common to, and shall be performed under, all programs:

a. Thorough cleaning and preservation, internal and external, immediately following or during shutdown. All rust, sludge, chips and other contaminants shall be removed.

b. Assembly of all manuals, installation drawings, other documentation, replacement parts, accessories and attachments.

c. Performance of inspection services to determine compliance with the applicable preservation-packaging and packing requirements of this appendix.

d. Completion of historical, property and inspection records in accordance with instructions in TM 38-750.

e. Installation of dust shields when experience or judgement indicates dust or other material accretion on machines is significant.

Section III. DETAIL REQUIREMENTS

C-6. Cleaning and Preservation-Packaging

Ammunition Peculiar Equipment, component parts, accessories, repair parts and tools shall be cleaned, preserved and packaged as specified herein. All cleaning and preservation shall be in accordance with MIL-P-116. All machines and tools require thorough cleaning and preservation immediately following shutdown, with special attention to coolant, hydraulic, pneumatic and lubrication systems to eliminate the necessity for later major disassembly to remove contaminants which may congeal during an idle period.

a. Processing Facilities. Preservation-packaging shall be accomplished within buildings which are rainproof and will prevent, substantially, all infiltration of wind-blown dust. The processing area shall be heated and equipped with adequate processing equipment such as spray booths, preservative tanks, etc. Equipment brought into processing areas shall be allowed to reach ambient temperature before processing.

b. Materials. Materials shall be as specified herein or as specified in the referenced packaging or material specifications. All materials shall be free of defect affecting serviceability.

c. Preservatives. Preservatives specified herein and the methods of application shall be in accordance with MIL-P-116.

d. Cleaning. Thorough cleaning and drying shall be accomplished prior to the application of preservatives. Unless otherwise specified, all surfaces of the item(s) shall be cleaned by process C1, MIL-P-116, and drying shall be accomplished by one or more of the drying procedures also listed therein. Cleaning, drying, inspections, fingerprint removal, and the application of preservatives shall comprise an uninterrupted series of operations, holding the total elapsed time to the absolute minimum. If cleaned surfaces tend to rust before preservation, the entire process from cleaning through preservation shall be confined to small sections, or the solvent used (P-D-680) for the final wiping of small cleaned areas shall contain about 5 percent of P-10, type I, grade 30, preservative. Prior to cleaning machines with solvents, exposed precision bearings, fluidic components, motors, control panels, other electrical systems, electronic systems, and items containing organic materials shall be covered or removed to prevent damage or contamination.

e. Fingerprint Removal. After cleaning and drying, and before the application of preservatives, critical operating surfaces and other machined surfaces shall be treated for the removal of fingerprint and perspiration residue. The compound shall conform to MIL-C-15074 and the procedures shall be in accordance with MIL-P-116.

f. Preservation. Preservatives shall be applied to clean interior and exterior unpainted surfaces by spraying, brushing, dipping, operating the machine under power at lowest speed for circulating the preservative, or other applicable methods specified in MIL-P-116. Care shall be taken to cover only the required surfaces, with minimum overlap on adjacent painted surfaces. After draining liquid preservatives from internal systems, all trapped pools of preservative shall be removed by suction pump or other appropriate means.

g. Maintenance of Preservative Film. Caution shall be exercised to insure that the preservative is not rubbed off after application. Areas with discontinuous preservation shall be recoated with the same type of preservative. Where blocking or bracing comes in contact with preserved areas, greaseproof paper conforming to MIL-B-121, grade A type I, shall be inserted, with double thickness fold, at the point of contact. The barrier materials shall extend approximately 1/2-inch beyond the edge of the block.

h. Disassembly. Equipment shall be disassembled only to the extent necessary to permit inspection, cleaning and preservation-packaging. All disassembly and reassembly shall be accomplished by technically qualified personnel knowledgeable of the types of machines involved. Care shall be exercised in the handling of parts to avoid damage and conditions which promote the formation of corrosion. Parts and assemblies removed during disassembly shall be properly identified to permit reassembly. Fasteners, including

shall be reinstalled in their respective locations in one of the mating parts to prevent loss, or improper selection, during reassembly. Do not disassemble high speed spindle heads.

i. Matchmaking. Prior to disassembly, each part and assembly requiring reassembly in a precise position with respect to mating part(s), shall be matchmarked. Matchmarked parts shall be identified by use of type B, class 2, shipping tags, conforming to UU-T-81, attached to the mating parts. When required, the marked tags shall be waterproofed in accordance with MIL-STD-129.

j. Disconnections. Wiring, piping and tubing shall never be cut. All disconnections shall be made at proper disconnect points, e.g., junction boxes, terminals or fittings. Disconnected wires, pipes and tubing shall be clearly identified to permit proper reassembly.

k. Furnaces and Ovens. Furnaces and ovens shall be cleaned and preserved-packaged in accordance with MIL-F-3296.

l. Large Furnaces. Prior to movement of any large furnace, an evaluation shall be made by qualified government personnel to determine severability. If movement action is required and inspection has disclosed that movement of the furnace from its installed position is economically feasible, only qualified government personnel, assisted by a manufacturer's representative when required, shall make the decision. Subassemblies, attachments and accessories shall be removed to avoid damage or reduce cubage. Major

members of a furnace shall not be cut. Installation and operating instructions shall be placed in a waterproof and greaseproof envelope constructed of barrier material conforming to MIL-B-121, grade A, class I, marked "Installation and Operating Instructions," and security attached to the furnace.

m. Compressors and Vacuum Pumps. Compressors and vacuum pumps shall be cleaned and preserved-packaged in accordance with MIL-C-3600.

n. Electrical and Electronic Equipment. Electrical and electronic equipment shall be cleaned and preserved-packaged in accordance with MIL-E-17555. Electron tubes subject to damage, if left in place during transportation, shall be removed. Tubes removed and mating sockets shall be marked as necessary to permit correct tube installation at time of reassembly. Additional instructions for delicate electronic and electrical equipment is contained in paragraph C-12.

o. Engines, Gasoline and Diesel. Gasoline and diesel engines shall be cleaned and preserved-packaged in accordance with MIL-E-10062.

p. Abrasive Products. Abrasive items and materials shall be removed from the equipment and, if in excellent condition, shall be prepared in accordance with MIL-A-3816 for shipment with the parent item.

q. Hose and Hose Fittings. Hose and hose fittings not installed shall be cleaned and preserved-packaged in accordance with MIL-H-775.

r. Technical Publications. Technical manuals, pamphlets, handbooks and other documentation shall be packaged submethod 1C-1 in accordance with MIL-P-116.

s. Levels. Preservation-packaging shall be level A, B, or Industrial, as specified. If no level is specified, selection shall be made in accordance with the criteria contained in C-4d.

C-7. Level A and Level B Cleaning and Preservation-Packaging

Applicable requirements of paragraph C-6 above and the following shall apply.

a. Critical Items and Surfaces. Basic units, parts, or components meeting the critical definitions in section 6, MIL-P-116, shall be protected by an applicable submethod of method II, MIL-P-116.

b. Painting. Surfaces where paint is missing shall be touched up or repainted. The basic purpose served by painting equipment is preservation. The color and workmanship of paint application shall be such that appearance is maintained and enhanced as much as practicable. The choice between touch-up and complete painting shall be made primarily on the basis of economy, but if either the number of spots or the total area requiring touch-up is excessive, the item shall be completely painted.

(1) Paint surface preparation. All loose paint shall be removed. All edges of old paint shall be feather-edged. In areas to be

painted, old paint shall be sufficiently abraded, normally by sanding, to insure firm adhesion of the new coating. Surfaces to be painted shall be thoroughly clean.

(2) Painting requirement. One coat of primer shall be applied to all areas not already fully primed. Primer shall conform to TT-P-636. After the primer is dry, two coats of semi-gloss enamel shall be applied, allowing time for the first coat to dry thoroughly before starting the second coat. Enamel shall conform to TT-E-489. For touch-up, the enamel shall match the existing color of the item. For complete repainting, the color shall be no. 24260, FED-STD-595. Hazardous areas of APE shall be painted per instructions in AR 385-30.

(3) Application of paint. Paint should be applied by spraying, but may be applied by brush or other methods. Coating shall be uniform and complete without sags, runs, holidays, or blisters.

c. Filters and Way Wipers. All cleanable filters shall be cleaned and replaceable filter elements renewed. Way wipers shall be removed and replaced.

d. Cable, Cord and Wire Assemblies. After cleaning, cable, cord and wire assemblies shall be coiled to a safe diameter and, when feasible, placed in a fiberboard container conforming to PPP-B-636. Closure of the containers shall be with PPP-T-76 tape.

e. External Surfaces. Prior to cleaning, remove all accessories and any assemblies which cannot be

cleaned and/or preserved/packaged on the machine. After cleaning, preserve all machined surfaces of the basic item, accessories and/or assemblies with P-2 or P-19 preservative. Rotate parts as necessary to insure complete coverage.

f. Driving Belts and Pulleys. Belts shall be removed from the equipment or released from tension. The faces or grooves of all ferrous metal pulleys shall be coated with primer conforming to TT-P-664. Removed belts shall be packaged method III in accordance with MIL-P-116 and secured to the equipment.

g. Lubricating Systems. Prior to cleaning other systems, remove all oil possible from the reservoir and fill with P-10, type I, grade 30 oil. After other internal systems have been cleaned and preserved, remove the oil; no further cleaning or preservation is required.

h. Other Internal Systems and Mechanism. Fluid carrying systems and gear boxes shall be cleaned and preserved with the machine operating under power, except when not economically feasible, to insure circulation of solvents and preservatives throughout the various systems. Operation shall be at the lowest speed, and no longer than necessary to insure thorough cleaning or coating with preservative. If power operation is not feasible, an auxiliary pump may be used for this operation. When specified herein, solution A shall be used for cleaning internal systems. Containers for the used solution shall not be re-used for purposes other than cleaning like systems.

SOLUTION A

One part lubricating oil, P-10, type I, grade 30, and nine parts cleaning solvent, P-D-680.

(1) Hydraulic systems. The reservoir shall be drained to remove all sludge, corrosion and other foreign matter. If initial draining indicates the system to be free of sludge, corrosion, and other foreign matter, preserve system by filling with lubricating oil, P-10, type I, grade 10, circulate thoroughly, drain the oil and close all openings. If the initial drain indicates contamination, fill with solution A, circulate thoroughly until system is clean, drain completely and preserve in the identical manner specified herein for an uncontaminated system.

(2) Gear Cases. Gear cases, including variable speed mechanisms, shall be drained. Whenever practicable, the cases shall be opened and all sludge, corrosion, and other foreign matter removed therefrom. Fill with solution A, shift gears into all possible positions while operating machine, then drain the solution. Preserve by filling with lubrication oil, P-10, type I, grade 30, shift gears into all possible positions while operating the machine, then drain the oil and close all openings.

(3) Coolant systems (soluble oils and cutting oils). Drain the system of all coolants. Open the system to the extent practicable

and remove all sludge, corrosion, and other foreign matter. Fill with solution A, circulate, and drain. Preserve by filling with preservative P-10, type I, grade 10, circulate, drain, and close all openings.

(4) Water cooling chambers, water jackets, steam lines, air lines, and related systems. Drain all water, and dry with moisture-free compressed air.

(5) Pneumatic systems. Drain all water and dry with moisture free compressed air. Fill lubricator with spindle oil having a SSU rating of 80 to 120 at 100 degrees Fahrenheit. Adjust lubricator to maximum flow and operate machine to coat interior of pneumatic system.

(6) Caution tag. When applicable, a waterproof tag conforming to UU-T-81 shall be attached to each machine. The tag shall state: "Machine has been preserved for shipment/storage. Before putting in operation, service all reservoirs and lubricate completely."

i. Bearings. Open-type (non-sealed) ball and roller bearings which have been removed from operating positions shall be cleaned and dried without spinning the bearing. Sealed bearings shall not be cleaned except by wiping. Bearings in operating positions are not required to be cleaned. Preserve open-type bearings with P-11 grease or P10, type I, grade 30 oil, as applicable. Preserve

high speed spindle bearings with P-9 oil. When current-carrying bearing assemblies are cleaned and reinstalled, or replaced, bearings shall be charged with lubricants specified by the manufacturer.

j. Journals. Oil-lubricated journals shall be drained, cleaned, redrained, and refilled with lubricating oil, P-10, type I, grade 10 or grade 30, as applicable.

k. Air Cylinders. Leave installed, if possible. Clean and dry the internal surfaces of cylinder and the operating system, and fog completely with P-10, type I, grade 30 oil. Inspect and replace organic packing, if necessary.

l. Organic Packing. Organic packing in coolant, lubricating, hydraulic, and other liquid carrying systems shall not be removed unless necessary for replacement purposes.

m. Nonlubricated Interior Machined Surfaces. Mechanism screws, exposed gears, etc, which cannot be easily depreserved, shall be coated with P-2 preservative. Screws, exposed gears, etc, which cannot be easily depreserved.

n. Closed Dial Indicators. No preservative is required. Cushion adequately with material conforming to PPP-C-843, type II, grade B, or PPP-C-1797, held in place with PPP-T-60 tape. The indicators shall be packaged submethod 1A-8 or 1A-15 in accordance with MIL-P-116.

o. Gages and Measuring Instruments. Gages shall not be removed unless they protrude or are otherwise subject to damage and cannot

be properly protected in-place. Gages and instruments other than closed dial indicators, including unit gages, fixture gages, and other measuring instruments, shall be coated with P-9 preservative oil. Loose gages and instruments shall be wrapped in MIL-B-121, grade A, barrier material, and packaged submethod 1C-1 or 1A-15, MIL-P-116.

p. Tools and Tool Accessories. Tools and accessories shall be prepared for shipment and storage in accordance with PPP-T-1150.

q. Consolidated Packaging. Except as otherwise specified herein, all preserved items not attached to the equipment shall be wrapped in barrier material MIL-B-121, grade A, type I or II, class 2, and secured with PPP-T-60 tape. Wrapped and packaged items shall be placed in containers conforming to PPP-B-601 overseas type, style optional, PPP-B-621, class 2, styled optional, W5C of PPP-B-636, or PPP-B-640, class 1 or 2, as applicable. Other items detached from the equipment which do not require a contact preservative shall be packaged in the same manner. All items placed in a container shall be cushioned, and blocked and braced in accordance with MIL-P-116 or MIL-STD-1186, as applicable. Closure of the containers shall be in accordance with the applicable container specification or the appendix thereto.

r. Frames, Tanks, Paint Spray Booths, Conveyor Systems, etc. Each item of this type shall be handled as a unit, or disassembled to the extent necessary for cleaning and preservative to conserve storage or shipping space. Unpainted ferrous metal surfaces

shall be coated with P-2 or P-19 preservative. Bearings and fittings shall be charged with P-11 grease.

s. Closure of Openings. Small openings which will admit dust or water (except vents and louvers installed for ventilation purposes) shall be sealed with tape conforming to PPP-T-60, type II, class 1. Large openings shall be covered with waterproof paper conforming to PPP-B-1055, class E-1. The paper shall be secured with tape specified above. When very large openings are covered, or when the location of an opening renders the covering vulnerable to puncture, the covering or seal shall be protected by wood, plywood, or metal. The open ends of all piping and fittings shall be properly closed with pipe fittings to prevent the entrance of foreign material. The pipe fittings shall be the same material as the part being plugged or capped; plastic caps or plugs conforming to MIL-C 5501 may be used.

C-8. Industrial Level Cleaning and Preservation-Packaging

Applicable requirements of paragraph C-6 above and the following shall be adhered to. All necessary action shall be taken to comply with the intent of paragraph C-3c.

a. Draining systems. Equipment cleaned and preserved at this level shall be shipped without draining the operating fluids from hydraulic systems, lubricating systems, and gear cases except when:

(1) Draining prior to shipment has been specifically directed.

C-10

(2) Such shipment of fluids is determined to be uneconomical for the government.

(3) Any reservoir cannot be secured against spillage during shipment.

b. External Surfaces. Remove all chips, dirt, oils and other contaminants from the basic item, its attachments, accessories and components. Clean all external surfaces with P-D-680. Apply P-2 or P-10 to all unpainted surfaces. Preserve attachments, accessories, and components removed from the basic equipment, wrap in barrier material MIL-B-121, grade A, type I or II, and secure with PPP-T-60 tape.

c. Lubricating Systems, Hydraulic Systems, and Gear Cases. After draining, if required in paragraph C-8a above, close all valves and vents.

d. Coolant Systems (soluble oils and cutting oils). Clean and preserved as specified in paragraph C-7h(3) above.

e. Caution Tag. When applicable, a waterproof tag conforming to UU-T-81 shall be attached to each machine. The tag shall state: "Machine has been preserved for shipment/storage. Before putting in operation, service all reservoirs and lubricate completely."

C-9. Preparation for Shipment

Unless otherwise specified, cleaning, preservation, and packaging requirements contained in this appendix shall have been accomplished prior to the operations contained in this paragraph.

a. Records. Prior to loading, the equipment shall be inspected to insure that all required records are packaged submethod 1C-1, MIL-P-116, and attached to the basic unit. Historical records shall be complete and include all available data pertinent to each item of equipment. Inspection forms shall be available for review of the results of the last inspection, and shall contain available space to record results of subsequent inspections performed during the storage period. Packing lists shall be utilized in accordance with MIL-STD-129. These are minimum record requirements. When available, photographs, installation and foundation drawings, manufacturer's parts manuals, and other manufacturer's data related to operation, maintenance, and lubrication shall be retained with the equipment. These records and data shall be available for inspection at point of storage and shall be shipped with equipment to which they pertain.

b. Inspection Requirements. Prior to shipment, the equipment shall be inspected to verify that the material has been prepared for shipment in accordance with the requirements specified in this appendix.

c. Blocking and Bracing. Machine heads shall be locked in lowest position. Movable parts shall be removed or carefully locked in position and braced to prevent movement in transit or handling. All equipment shall be completed assembled when being

prepared for shipment whenever weight and size permit, provided all necessary blocking can be accomplished to assure adequate protection for all components, attachments, and accessories. When it is not considered feasible to ship a machine assembled, the attachments, accessories, and components shall be packed according to weight as specified herein. Relieve all tension from cables, etc. etc. Detailed requirements for blocking and bracing of equipment are contained in MIL-HDBK-701.

(1) Tables, ball-screw driven mechanisms, and parts. Tables or other components moving on ball bearings or other types of high efficiency, low friction ball or roller bearing assemblies, shall be removed or blocked and all components treated in such a manner that neither the way(s) surface(s) nor the anti-friction devices will be subject to damage. The bearing(s) preload, when required, shall be relieved. Recirculating ball-screw driven components shall have the ball nut(s) disconnected and the complete mechanism shall be protected to prevent damage during shipment and handling. Slides, counterbalances, motors, hydraulic tables, and any movable components shall be securely braced.

(2) Counterweights. Counterweights shall be blocked in place to relieve the load on the supporting device(s) and secured to prevent movement in any direction. If complete immobilization in place is not possible, remove and mount securely outside the machine.

d. Skidding. Skidding instructions are contained in MIL-HDBK-701. In preparing APE for domestic shipment, skidding rather than crating or boxing is considered to be economically advantageous, especially when aluminum skids are used. Inspect skids prior to shipment or storage and replace if necessary.

e. Shipping Covers and Shrouds. After equipment has been loaded and secured, a visual examination shall be made to detect any disturbance of preservatives on machine surfaces. The integrity of the preservative(s) shall be verified and, if touch-up procedures are required, the same type of preservative shall be applied to the bare area. When open-type transportation is utilized, equipment which is not otherwise fully protected against the natural elements shall be protected from water, dirt, etc, by shrouding with waterproof tarpaulins, or vinyl-coated nylon fabric conforming to MIL-C-43006, or nylon-reinforced laminated plastic sheet conforming to L-P-00524. All covers shall be of sufficient strength to provide adequate protection throughout the transit period, and shall be secured in a manner to insure that such protection is achieved. Covers constructed from waterproof paper shall not be used. All sharp corners and projections shall be padded or cushioned before shrouding. Shrouds shall be fraped in a manner to completely cover the item and arranged to avoid the formation of water pockets. When closed-type transportation is utilized, dust shields shall be used, when required, to prevent dust or other material from collecting on critical surfaces.

f. Packing. Packing shall be accomplished in accordance with paragraph C-10.

C-10. Packing

Except as provided in paragraphs C-10a and C-10-b below, the following requirements apply, and packing shall be at level A, B, or industrial as specified. If no level is specified, selection shall be made in accordance with paragraph C-4d. Equipment not covered herein shall be treated in accordance with the applicable commodity specification, or the methods herein for other items most similar to the specific equipment being processed.

a. Air Shipment. Equipment to be transported by air shall be prepared for shipment in accordance with MIL-A-25175.

b. Specific Equipment. Except as provided in paragraph C-10a above, the following types of items shall be packed at the required level in accordance with the document cited:

(1) Compressors and vacuum pumps, MIL-C-3600.

(2) Electronic and electrical equipment, MIL-E-17555 (also see paragraph C-12).

(3) Engines, gasoline and diesel, MIL-E-10062.

(4) Furnaces and ovens, MIL-F-3296.

(5) Abrasives, MIL-A-3816.

(6) Hose and fittings, MIL-P-775.

c. Level A.

(1) Equipment not exceeding 1,000 pounds. Each item, complete with attachments, accessories, and components, weighing 1,000 pounds or less, shall be packed in a box conforming to PPP-B-601 (overseas type), or to PPP-B-621, class 2, style 2, 2-1/2 or 3, as applicable. Each container with contents weighing more than 200 pounds shall be modified by the installation of skid runners in accordance with the applicable container specification. Contents of each container shall be secured, water-proofed, cushioned, blocked, and braced in accordance with MIL-STD-1186. Containers shall be strapped with zinc-coated strapping conforming to QQ-S-781. Size and number of straps shall be in accordance with the appendix to the box specification.

(2) Equipment not exceeding 30,000 pounds. Each item, complete with attachments, accessories and components, weighing more than 1,000 pounds but not exceeding 30,000 pounds shall be packed in a crate conforming to MIL-C-104. Blocking, bracing, anchoring, cushioning, and waterproofing shall be in accordance with MIL-STD-1186. Closure and strapping shall be in accordance with the appendix to the crate specification (MIL-C-104) except strapping shall be zinc-coated.

(3) Equipment weighing over 30,000 pounds. APE weighing over 30,000 pounds, or dimensionally in excess of the limitations specified in MIL-C-104, shall be shipped in accordance with directions issued by the organization directing the shipment. Blocking,

bracing, anchoring, cushioning, and waterproofing shall be in accordance with MIL-STD-1186.

d. Level B.

(1) Equipment not exceeding 1,000 pounds. Each item, complete with attachments, accessories and components, weighing 1,000 pounds or less, shall be packed in a box conforming to PPP-B-601 (domestic type) or PPP-B-621, class 1, style as applicable. Each box with contents weighing more than 200 pounds shall be modified by the installation of skid runners in accordance with the applicable container specification. Contents of each container shall be cushioned, blocked, and braced in accordance with MIL-STD-1186. Boxes shall be strapped in accordance with the applicable container specification or the appendix thereto.

(2) Equipment not exceeding 16,000 pounds. Each item, complete with attachments, components and accessories, weighing more than 1,000 pounds but not exceeding 16,000 pounds shall be packed in open crates conforming to PPP-C-650 or MIL-C-3774, style optional depending on weight, size and dimensions of the unit to be packed. Blocking, anchoring, bracking closure and strapping shall be in accordance with the appendix to the applicable crate specification.

(3) Equipment weighing over 16,000 pounds. APE weighing over 16,000 pounds but not exceeding 30,000 pounds shall be packed in accordance with paragraph C-10c(2). Equipment weighing over

30,000 pounds, or in excess of the limitations specified in MIL-C-104, shall be shipped in accordance with directions issued by the organization directing the shipment.

e. Industrial Level. APE accessories, attachments, and components shall be packed in a manner that will prevent deterioration and damage during shipment, handling, and storage. Containers and packing shall comply with Uniform Freight Classification Rules or National Motor Freight Classification Rules as applicable.

f. Marking. Marking shall be in accordance with MIL-STD-129.

g. Packing List. Packing list shall be prepared in accordance with MIL-STD-129.

C-11. Storage

Sound engineering practices shall be observed in the storage of APE. In addition to other protective measures prescribed in this appendix, proper support of machine tools base(s) is required to prevent distortion. Skids shall provide proper load points for machine support members and load transfer points shall be maintained in storage (see para C-11c). Equipment mounted on wooden skids is subject to stresses caused by the warping of skid components in varying humidity environments. These loadings can distort precision machinery and in extreme cases, structural damage may occur. Machine anchor bolt

holes (when provided) are used to secure machines to skids. After a machine has been located in storage, the machine bolt hold-down nuts shall be loosened a minimum of 1/2-inch from the machine base and the bolt threads preserved with P-2 preservative. Other machine-to-skid retention devices shall be similarly adjusted. Machines mounted on aluminum skids do not require unloading adjustments of the hold-down bolts or other retention configurations.

CAUTION

It is imperative that the machine-to-skid retention devices, whatever the configuration, ARE properly tightened and secured PRIOR to movement of equipment.

a. Types of Storage. The term "controlled" used herein applies only to the levels of relative humidity maintained in deterioration-retarding storage climates.

(1) Controlled storage. Types of controlled storage areas are as follows:

(a) Type A. Controlled humidity (CH) storage: Dynamic dehumidification, enclosed building or hutment. Relative humidity maintained at 50% or less.

(b) Type B. Heated storage: temperature-regulated relative humidity, enclosed building or hutment. Relative humidity maintained at 50% or less.

(2) Uncontrolled storage. Storage areas with no relative humidity control. Such spaces may be as follows:

- (a) Enclosed buildings.
- (b) Outdoors, under cover (shed, lean-to).
- (c) Outdoors, no cover structure, or similar protection from the elements.

Outdoor storage is satisfactory for specified APE items, e.g., APE 1937 and APE 2074.

b. Skids, Crates and Boxes. Skids, crates and boxes containing APE shall be inspected when received. When required, complete repacking, recrating, or re-skidding shall be accomplished prior to storage or shipment. However, an item on skids, or in a container, neither of which meets the requirements of this appendix, shall not be reskidded or placed in a new container provided safe handling and storage is assured and carrier requirements are met by the existing skid or container.

c. Leveling. The leveling requirements herein are for the primary purpose of assuring that all machine support members are uniformly loaded to prevent distortion of precision-aligned elements. All equipment having ways or other precision-aligned elements over 6 feet long, horizontally, shall be maintained in a level position by shimming supporting members as required. Leveling of equipment on wooden skids shall be accomplished by placing shims between the skid and

the machine base when required to assure load transfer to the skid, and between the skid and the floor at the same points if the skid is not bearing solidly on the floor. Equipment on aluminum skids shall be leveled by placing shims between the skid and the floor. In the event that equipment is stored without skidding, leveling may be accomplished by shims between the machine base and the floor, or by adjusting the leveling screws. If it becomes necessary to move equipment which requires leveling, the equipment shall be releveled upon relocation (see para C-11).

d. Aisle Space. Equipment shall be arranged to provide adequate aisle space for inspection and to provide adequate room for the removal of equipment. The size of removal aisles should be governed by the size of equipment stored and the facilities available for handling. When practicable aisles should be continuous to promote a straight-line traffic pattern.

e. Accessories. Boxed and crated accessories and attachments shall be placed on the skid with the related equipment, if possible, and contact of wood with preserved surfaces avoided. When the above requirements are not practicable, boxed and crated accessories may be block-stacked separately from the basic item, provided they are identified to the item on which they belong. An appropriate notation shall be made on the record of the item to indicate that such accessories are stored in a particular location and are identified to the item.

f. Maintenance, Surveillance, and Inspection. Equipment in storage shall be free of deterioration. This includes the equipment retained in lay-away packages as standby-in-place, on-site and nearby. An inspection plan, acceptable to the NICP, shall be established at each storage location. The plan shall contain provisions to insure adequacy of equipment preservation in each of the types of storage used (see para C-11a). The plan shall include inspection of gear cases and other internal mechanisms to insure the items are properly preserved and free of contamination. Sampling inspection shall be performed in accordance with MIL-STD-105. Inspection results shall be used in determining the frequency of inspections. Corrective actions shall be taken immediately when unsatisfactory conditions are found.

C-12. Electrical and Electronic Equipment and Components

Except as otherwise indicated herein, the following applies for all levels of preservation-packaging and packing:

a. General. In addition to the requirements contained in MIL-E-17555, the following detailed requirements apply when preparing delicate electrical and electronic equipment for shipment. Typical examples, control panels, pendants, automatic machine control consoles, X-ray machines, electro-limit gages, comparators, machine control units and memory units are of such fabrication as to place them in a separate category with respect to cleaning, preservation-packaging, and pack-

ing. Equipment of this type depends heavily on the integrity of the electrical/electronic systems which demand special care in disassembly and reassembly. This is particularly true with respect to the many electrical conductors which interconnect separable components. When essential to preparation for shipment, handling, and storage, components may be disconnected and removed from the parent machine. Cable assemblies and conductor bundles shall be carefully removed from conduits (when applicable) and guided through routing access holes (when existent) during disassembly and reassembly. In-place immobilization is preferable when the proper degree of protection can be assured. The complexity of the designs and circuits, particularly of control panels, necessitates processing as assembled units, using only those methods of cleaning that will not damage delicate systems components and materials. Solvent flushing shall not be used in the cleaning of electrical circuits. Low pressure moisture-free compressed air, vacuum cleaning, or wiping with a lint-free cloth may be used for cleaning. Further cleaning-preservation is not required.

b. Cushioning, Blocking, and Bracing. It is of paramount importance that adequate cushioning, blocking and bracing be accomplished in preparing delicate electronic and electrical equipment for shipment. Vibration which can cause extensive damage to internal and external components, shall be held to a minimum. Cushioning, blocking and bracing shall be in accordance

with MIL-STD-1186 and MIL-E-17555. Heavy components shall be adequately blocked and braced or removed. Many heavy components do not have adequate internal support to insure safe delivery. Therefore, consideration shall be given to removing these items and shipping separately. Particular attention shall be given to possible removal of heavy items, e.g., transformers and motors, which might break loose and cause damage. When components are removed from the equipment, disconnection shall be in accordance with para C-6i and the components shall be marked and identified to assure correct reinstallation. All screws and bolts used to secure circuits, panels, shelves, etc., shall be tightened to prevent movement of the components during transportation and handling.

c. Electron Tubes. Electron tubes shall be handled in accordance with the requirements of para C-6n.

d. Packaging. Parts which have been removed shall be packaged in accordance with para 3.3, MIL-E-17555. Packaged items shall be placed in containers conforming to PPP-B-601, PPP-B-621, PPP-B-636, PPP-B-640, or PPP-C-650. Cabinet doors shall be locked and secured with banding conforming to QQ-S-781. Adequate cushioning shall be used to prevent the banding from scratching or otherwise damaging the cabinet.

e. Packing. Each basic unit, together with removed parts packaged in accordance with para C-12d above, shall be placed in a closed exterior container conforming to one of the applicable specifications listed in para C-12d. An

adequate amount of cushioning material shall be applied to the top, bottom, and all sides of the item to absorb shock and prevent damage.

f. Marking. Marking shall be in accordance with MIL-STD-129; additional precautionary markings, e.g., "Fragile", "Handle with care", "This side up", shall be applied, as required.

g. Transportation Mode. Due to the high susceptibility of delicate electronic and electrical items to damage from vibration and shock, these items should be shipped on specialized equipment available from carriers for the movement of fragile items. For shipment of specialized equipment to a user utilizing industrial level packing, the requirements in para C-12e above may be relaxed at the discretion of the shipper if evaluation by responsible government personnel indicates that boxing or crating is not required and safe delivery and handling can be assured.

C-13. Inspection Procedures

The inspection of equipment shall be performed in a manner, and to the degree, that will assure acceptance of only approved methods and materials; requirements include complete inspection records. Inspection shall be performed by qualified personnel who, by training and experience, are familiar with the design, assembly, and operation of the type of equipment involved.

a. Inspection After Disassembly and Cleaning. The equipment shall be inspected to confirm that thorough cleaning has been accom-

plished and that all damaged or missing parts have been, or are scheduled to be, replaced. Disassembly and cleaning shall be accomplished in accordance with the requirements contained in para C-6, C-7, and C-8.

b. Inspection After Preservation. The equipment shall be inspected to insure that correct reassembly was accomplished after cleaning and that all surfaces requiring a preservative have been treated as required in para C-6, C-7, and C-8.

c. Inspection of Preservation-Packaging, Packing, Skidding, Marking, Shrouding, and Loading. Inspection shall be performed to assure that all accessories, attachments, and components, have

been properly cleaned, preserved, packaged, or installed on the machine on which they are used. When items are not installed on the machine, they shall be packaged in accordance with instructions in this standard, identified with the machine on which they are used, and stored with the parent machine when possible. Packing lists shall be checked to insure conformance to MIL-STD-129. Inspection of the skidding, packing, shrouding, and loading shall be performed to insure conformance to the requirements contained in para C-9 and C-10.

d. Identification of Containers. Unless otherwise specified, all containers and packaged material shall be marked in accordance with MIL-STD-129.

C-14. Decontamination

Prior to any transportation of APE items decontamination and proper documentation must be performed. These procedures are outlined in T.B. 700-4. Strict adherence to established decontamination certification is imperative to eliminate potential problems.

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By Order of the Secretary of the Army:

CARL E. VUONO
General, United States Army
Chief of Staff

Official:

WILLIAM J. MEEHAN II
Brigadier General, United States Army
The Adjutant General

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TEAR ALONG PERFORATED LINE

THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches
 1 Meter = 100 Centimeters = 1000 Millimeters = 39.37 Inches
 1 Kilometer = 1000 Meters = 0.621 Miles

WEIGHTS

1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
 1 Kilogram = 1000 Grams = 2.2 Lb
 1 Metric Ton = 1000 Kilograms = 1 Megagram = 1.1 Short Tons

LIQUID MEASURE

1 Milliliter = 0.001 Liters = 0.0338 Fluid Ounces
 1 Liter = 1000 Milliliters = 33.82 Fluid Ounces

SQUARE MEASURE

1 Sq Centimeter = 100 Sq Millimeters = 0.155 Sq Inches
 1 Sq Meter = 10,000 Sq Centimeters = 10.76 Sq Feet
 1 Sq Kilometer = 1,000,000 Sq Meters = 0.386 Sq Miles

CUBIC MEASURE

1 Cu Centimeter = 1000 Cu Millimeters = 0.06 Cu Inches
 1 Cu Meter = 1,000,000 Cu Centimeters = 35.31 Cu Feet

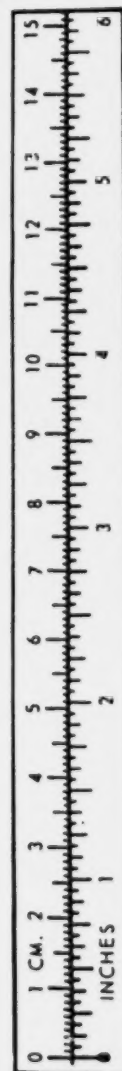
TEMPERATURE

$5/9(^{\circ}\text{F} - 32) = ^{\circ}\text{C}$
 212 $^{\circ}$ Fahrenheit is equivalent to 100 $^{\circ}$ Celsius
 90 $^{\circ}$ Fahrenheit is equivalent to 32.2 $^{\circ}$ Celsius
 32 $^{\circ}$ Fahrenheit is equivalent to 0 $^{\circ}$ Celsius
 $9/5\text{C}^{\circ} + 32 = \text{F}^{\circ}$

APPROXIMATE CONVERSION FACTORS

TO CHANGE	TO	MULTIPLY BY
Inches	Centimeters	2.540
Feet	Meters	0.305
Yards	Meters	0.914
Miles	Kilometers	1.609
Square Inches	Square Centimeters	6.451
Square Feet	Square Meters	0.093
Square Yards	Square Meters	0.836
Square Miles	Square Kilometers	2.590
Acres	Square Hectometers	0.405
Cubic Feet	Cubic Meters	0.028
Cubic Yards	Cubic Meters	0.765
Fluid Ounces	Milliliters	29.573
Pints	Liters	0.473
Quarts	Liters	0.946
Gallons	Liters	3.785
Ounces	Grams	28.349
Pounds	Kilograms	0.454
Short Tons	Metric Tons	0.907
Pound-Feet	Newton-Meters	1.356
Pounds per Square Inch	Kilopascals	6.895
Miles per Gallon	Kilometers per Liter	0.425
Miles per Hour	Kilometers per Hour	1.609

TO CHANGE	TO	MULTIPLY BY
Centimeters	Inches	0.394
Meters	Feet	3.280
Meters	Yards	1.094
Kilometers	Miles	0.621
Square Centimeters	Square Inches	0.155
Square Meters	Square Feet	10.764
Square Meters	Square Yards	1.196
Square Kilometers	Square Miles	0.386
Square Hectometers	Acres	2.471
Cubic Meters	Cubic Feet	35.315
Cubic Meters	Cubic Yards	1.308
Milliliters	Fluid Ounces	0.034
Liters	Pints	2.113
Liters	Quarts	1.057
Liters	Gallons	0.264
Grams	Ounces	0.035
Kilograms	Pounds	2.205
Metric Tons	Short Tons	1.102
Newton-Meters	Pound-Feet	0.738
Kilopascals	Pounds per Square Inch	0.145
Kilometers per Liter	Miles per Gallon	2.354
Kilometers per Hour	Miles per Hour	0.621



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